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THE SLAVE QUESTION.

[We invite the attention of our readers to the following letter of Mr. Carey, of this city, to an eminent citizen of the North; the more especially as it makes apparent the grounds of the harmony it would earnestly inculcate between the North and the South, on the most exciting topic of the day.]

DEAR SIR:—The great question of the day is that of Slavery, its extension or its limitation, its perpetuation or its extinction. It seems likely to swallow up almost all others. Whigs abandon the party with which for years they have acted, and vote for "free soil" candidates to whom, as Democrats, they have always been opposed; while Democrats vote for Whig candidates, in the hope to find in them the men least likely to sanction interference with their rights of property; and yet, of all who talk so loudly and sometimes act so strangely, scarcely a single one seems disposed calmly to examine the subject with a view to ascertain what are the effects likely to be produced by the measures they advocate, upon the condition, physical, moral, intellectual, and political, of the objects of their solicitude.

How shall we free ourselves from the curse of slavery? Such is the question that now stands foremost for consideration throughout a majority of the States south of Mason and Dixon's line. Throughout the Union, all desire to see by what means the nation shall be freed therefrom, and the question has been repeated times without number in every State, without having ever as yet, to my knowledge, produced a satisfactory reply. The abolitionist answers by a refusal to eat the sugar of Louisiana, or to wear the cotton of Georgia, preferring to feed and clothe himself by aid of the labor of the Hindoo, who, nominally free, labors a whole month for two rupees—about one dollar—and dies of the pestilence that follows a famine resulting from the excessive poverty produced by taxation; and to that he is subjected for the support of armies that are kept on foot for the purpose of compelling him to give to the collector of *rents* half or two-thirds of all the miserable product of labor employed in the cultivation of high and poor lands, while surrounded by low and rich ones that have relapsed into *jungle*, because of his inability to continue the system of drainage established before India had become the prey of European conquerors. If, happily, he survives the famine and the pestilence, he sells himself for a term of years, to be transported to Demerara or Jamaica, there to perform the labor of a slave, and to endure treatment similar to that to which was due the disgraceful fact, that the slaves liberated at the period of emancipation were fewer in number than had been imported, whereas, from the superior treatment of American slaves, the three or four hundred thousand barbarians that were imported are now represented by three or four millions of comparatively civilized men.

The abolitionist refuses to consume slave-grown cotton, because he thinks that while his labor is so valuable the slave can never become free, and that by diminishing the market for the product of his labor, he himself will become less valuable to his owner, and that thereby will be produced in the latter a disposition to set his bondman free. In this opinion he does not stand alone. It may be found in every English journal. The people of Eng-

land would supersede the use of the sugar of Cuba and Brazil, and the cotton of America, substituting the product of the half-starved and wretched Hindoo for that of the well-fed laborer of Georgia and Alabama, with a view to diminish the value of the slave, and thus facilitate his emancipation. It is held to be impossible that men should become free while worth six or eight hundred dollars each, but that they will certainly become so, if their labor can be rendered so valueless that they themselves will become a burden to their owners. Such is the almost universal impression; and having found it recently in a letter addressed by you to the Rev. Mr. Danforth, I avail myself of the opportunity to examine how far it is correct, believing it can be shown that while it is one which tends greatly to maintain the existing alienation between the people of the Northern and Southern portions of the Union, and is, therefore, injurious, it is not less erroneous, and will not stand examination.

Your views on this subject are thus given: "It [slavery] may be abolished in all of them when slave labor ceases to be profitable: when labor in the cotton growing States is of no more value than it is in many parts of Europe. No one would accept a slave, white or black, in Ireland."

As nothing in this world can remain stationary, the value of labor must either increase or diminish—i. e., it must become either more productive of the commodities required for the convenience and comfort of man, or it must become less so. In one of these directions lies freedom. In the other, continued slavery. If the almost universal view, which you have thus expressed, is correct, every one who desires that all men may become free should unite in the effort to diminish the productiveness and consequent value of slave labor, thereby impoverishing the slave and his owner, and the necessary consequence of such an effort must be increasing hostility between the North and the South. If, on the contrary, it is incorrect, and if freedom be likely to follow naturally from an increase in the productiveness, and consequent value, of slave labor, then every man, North, South, East, and West, should be disposed to unite with his fellow-men in the effort to promote that increase of value, thereby enriching the master while improving the condition of his bondsmen, the necessary consequence of which must be increasing harmony between the various sections of the Union.

One of these views is true, and the other is false. The great mass of the community believe, with you, that truth is to be found in the first; but I believe that it will not be difficult to show that it must be sought for in the last, and it is with a view to show, as I think conclusively, that such is the case, that I address you this letter, well convinced that you would rejoice to be satisfied that the course towards freedom lies in the direction of measures tending to enhance the value of the negro, and that those who would follow in it must adopt a policy directly the opposite of that which has ruined Ireland, impoverished the land and its owner, and rendered the Irishman a burden from which his *owner*—for such he is—is glad to free himself by aid of wholesale clearances, by evictions from lands which the poor tenant has himself reclaimed, and by the destruction of tenements which the poor occupants themselves have built, careless whether their unfortunate late inhabitants perish in the immediate neighborhood, die of starvation in the wretched cellars of Liverpool, fall a prey to ship fever in the passage to Canada, or freeze to death on the inhospitable shores of the St. Lawrence.

Throughout the world, and in all ages, freedom has advanced with every increase in the ratio of wealth to population. When the people of England were poor, they were enslaved, but with growing wealth they have become more free. So has it been in Belgium and in France. So is it now in Russia and Germany, and so must it everywhere be. India is poor, and the

many are slaves to the few. So is it in Ireland. Freedom is there unknown. The poor Irishman, limited to the labors of agriculture, desires a bit of land, and he gives the chief part of the product of his year's labor for permission to starve upon the balance, happy to be permitted to remain on payment of this enormous rent. He is the slave of the land-owner, without even the slave's right to claim of him support in case of sickness, or if, escaping from famine, he should survive to an age that deprives him of the power of laboring for his support. England employs fleets, paid for out of taxes imposed on starving Irishmen, to prevent the people of Brazil from *buying* black men, and women, and children, on the coast of Africa, while holding herself ready to *give* white men, and women, and children, to any who will carry them from her shores, and even to add thereto a portion of the cost of their transportation; and this she does without requiring the transporter to produce even the slightest evidence that they have been delivered at their destined port in "good order and well-conditioned." When Ireland shall become rich, labor will become valuable, and man will become free. When Italy was filled with prosperous communities, labor was productive, and it was in demand; and then men who had it to sell fixed the price at which it should be sold. With growing poverty, labor ceased to be in demand, and the buyer fixed the price. The laborer then became a slave. If we follow the history of Tuscany, we can find men becoming enslaved as poverty succeeded wealth; and again may we trace them becoming more and more free, as wealth has grown with continued peace. So has it been in Egypt, and Sicily, and Spain. Everywhere poverty, or a deficiency of those aids to labor which constitute wealth, is, and has invariably been, the companion of slavery, and everywhere wealth, or an abundance of ploughs, and harrows, and horses, and cows, and oxen, and cultivated lands, and houses, and mills, is, and has as invariably been the companion, and the cause, of freedom.

Wealth tends to grow more rapidly than population, because better soils are brought into cultivation; and it does grow more rapidly whenever people abandon swords and muskets and take to spades and ploughs. Every increase in the ratio of wealth to population is attended with an increase in the power of the laborer as compared with that of landed or other capital. We all see that when ships are more abundant than passengers, the price of passage is low, and that, on the contrary, when passengers are more abundant than ships, the price is high. When ploughs and horses are more plenty than ploughmen, the latter fix the wages, but when ploughmen are more abundant than ploughs, the owners of the latter determine the distribution of the product of labor. When wealth increases rapidly, new soils are brought into cultivation, and more ploughmen are wanted. The demand for ploughs produces a demand for more men to mine coal and smelt iron ore, and the iron-master becomes a competitor for the employment of the laborer, who obtains a large proportion of the constantly increasing return to labor. He wants clothes in greater abundance, and the manufacturer becomes a competitor with the iron-master and the farmer for his services. His proportion is again increased, and he wants sugar, and tea, and coffee, and now the ship-master competes with the manufacturer, the iron-master and the farmer: and thus with the growth of population and wealth there is produced a constantly increasing demand for labor; and its increased productiveness, and the consequently increased facility of accumulating wealth, are followed necessarily and certainly by an increase of the laborer's proportion. His wages rise, and the *proportion* of the capitalist falls, yet now the latter accumulates fortune more rapidly than ever, and thus his interest

and that of the laborer are in perfect harmony with each other. If we desire evidence of this, it is shown in the constantly increasing amount of the rental of England, derived from the appropriation of a constantly decreasing proportion of the product of the land: and in the enormous amount of railroad tolls compared with those of the turnpike: yet the railroad transports the farmer's wheat to market, and brings back sugar and coffee, taking not one-fourth as large a *proportion* for doing the business as was claimed by the owner of the wagon and horses, and him of the turnpike. The laborer's product is increased, and the proportion that goes to the capitalist is decreased. The power of the first over the product of his labor has grown, while that of the latter has diminished.

Such having been, and such being now, the case in all countries of the world, it would certainly seem probable that it would be so with the negro, and that if we would desire that he should acquire that complete control over his actions, and over the fruits of his labor, which constitutes freedom, we should seek to pursue that course which must tend most to the augmentation of wealth, and consequently to the increase of the value of the slave to his master, because of the increased productiveness of his labor. In confirmation of this view, we may see that, throughout this country the amount of freedom is everywhere in the ratio of wealth to population, i. e., in the ratio which the machinery of production, seeking labor for its employment, bears to the labor seeking to be employed. The man of Massachusetts—and still more, the woman—enjoys a greater amount of freedom than the man or woman of Pennsylvania, and the latter are far more free than their neighbors of Virginia, although all equally free in the eye of the law. The negro is more free in the rapidly growing Georgia and Tennessee, than in decaying Virginia and South Carolina. It cannot be otherwise. When wealth grows rapidly the demand for labor increases more rapidly than the number of laborers, and thus is produced a tendency to the adoption of labor-saving machinery, by which the exertion of man is rendered more productive. With each step in this progress the value of the laborer rises, and with each he acquires more control over the application of his labor and its proceeds, being better fed, better clothed, better lodged, and better taught; and thus every increase in the price of the slave is evidence that the day is approaching when laborers will determine for themselves to whom they will sell their labor, and what shall be its price.

If this view is correct, and it is in accordance with the experience of all ages and all nations, it would appear obvious that those who desire the emancipation of the slave, should desire to co-operate in the measures that would tend most rapidly to augment the wealth of the Southern States, and to oppose all measures tending in the opposite direction, and that such is the true anti-slavery policy I entertain no doubt. How is it to be done? To this question we may, I think, obtain an answer, by looking to those portions of the South in which wealth is now increasing most rapidly, to wit, Georgia and Tennessee, whose policy has tended most to the introduction of the machinery of manufacture, and contrasting their condition with Virginia and South Carolina, whose policy has tended most to the limitation of the efforts of the people to the single pursuit of agriculture. The former have obtained cotton and woollen machinery, and furnaces, and forges, by aid of which there has been created a demand for a vast amount of labor that would otherwise have been wasted, and the necessary effect of this has been an increase in the value of the property of the man who had labor power to sell, i. e., the owner of slaves, and he has grown rich while the condition of his people has steadily improved, whereas South Carolina has driven capital

abroad in search of employment,* and her people are now flying from their plantations, frequently abandoning them absolutely because of inability to obtain purchasers at any price whatsoever.

When men are limited to the single pursuit of agriculture they are necessarily poor, and they must become poorer every day, and with each step in this progress those who labor become more and more subject to the will of those who do not. In such a state of things, the men can earn little, because there is no demand for the labor that is not required in the field, and the women and children are idle from want of any demand whatsoever for their labor. The owner of the land cannot rely on aid in harvest time, and it is useless for him to plant more than he can calculate upon being able to gather, and thus he is obliged to support many hands that are of comparatively little use to him. Place the mill and the furnace in his neighborhood, and there is at once produced a demand for the surplus labor of one part of the year, while securing a sufficient supply for the other, and thus are the productiveness of labor and the value of the laborer both augmented.

The direct effect of the location of machinery for the production of cloth and iron in any neighborhood is to produce an increased demand for labor and a rise in its price, and the owner of that machinery is thereby stimulated to exertion to meet the change. His capital is invested in spindles and looms, or in a furnace, and they must be made productive. At thirty yards per loom, per day, he might live, but at forty he would grow rich. The slave would give him the former quantity, but the freeman would give him the latter one. He desires to give to the bondman the stimulus that is felt by the freeman, and he fixes *his task* at 30 yards, paying for the surplus as over-work. At once the slave becomes, to a considerable extent, a seller of his own time, and a receiver of wages. Such is the course of things now at the South, and such must it continue to be, and thus the increase of wealth in the form of the cotton mill or the furnace, while tending to enrich the owner of slaves, tends equally to the enfranchisement of the man who is held as a slave.

The mill brings people to the neighborhood, and new demands for labor arise, and with each step there is an increase in the value of labor, and in the power of consuming its products. Houses are wanted, and stone quarries become valuable, while the demand for timber enables the land-owner to sell his trees instead of killing them. His land increases in value, because of the facility of exchanging food and cotton for cloth and iron; and he himself grows rich, because he is enabled readily to return to the land the refuse of its products, in the form of manure, thereby increasing his crops. A demand arises for numerous smaller articles of food, and gardens and little farms appear, the high price obtainable for such portions of land offering to the great land-owner a strong inducement to the division of his land. The slave who has earned wages in a mill may become an owner of land, or his fellow-slave may cultivate a few acres of cabbages, and peas, and beans, required to meet the demand that has arisen, paying to his master a fixed sum in lieu of his services, retaining the balance as wages. He thus becomes a payer of rent. Each step thus made, is but the preparation for a new and greater one, and those who may examine the subject will see such steps being made throughout the South, and always in the ratio of the growth of wealth.

* That State has always greatly restricted the application of capital to the formation of banks at which her own people could obtain the aid required to enable them to improve their lands, and the natural consequence has been, that it has sought employment abroad. She was always among the largest holders of stock in the United States Bank.

In Mississippi and Louisiana, slaves have their little pieces of land, the products of which they sell to the highest bidder, who is very frequently their master. To such an extent is this carried, that I have known a single planter from the latter State to be charged, on his visit to the North, with \$2500 belonging to his people, to be applied to the execution of their orders for commodities of various kinds. Here is a step towards freedom, and all that is needed to bring about perfect freedom is the pursuance of that course which tends to increase the value of land and labor, by bringing together the consumer and the producer, thus diminishing the waste of labor and of manure on the road and in the work of transportation and exchange, by the vast extent of which both the land and its owner are now being exhausted.

Throughout the world the tendency to the division of land has existed in the ratio of the growth of wealth, although counteracted sometimes by laws like those now existing in England, the effect of which is to repel capital from land and to drive it into manufactures and commerce. In Russia, and Hungary, and Mexico, poor nations, land is held in large quantities. In Belgium and Tuscany, the richest portions of continental Europe, it is held in small ones. In India, under British rule, the village proprietor has disappeared, to be replaced by the great Zemindar. In New England, land is divided, but as we pass South and West, with diminishing wealth, we find land becoming less valuable and held in larger quantities.

That the growth of wealth and the tendency to the division of land, and freedom of man, in the Southern States, have been slow, has resulted from the fact that their policy has tended to the exhaustion of the land and impoverishment of its owner, who has thus been compelled to fly to new lands to be again exhausted. In Virginia and South Carolina, but particularly in the latter, there is a tendency towards actual depopulation, the necessary consequence of which is the accumulation of large bodies of land in the hands of individuals, who become poorer as their possessions increase in size, because of the constantly diminishing power of combination for any purpose of improvement. In Georgia, on the contrary, there is a rapid increase of population with a corresponding increase in the productiveness of labor and in the value of land, accompanied by a tendency to its subdivision, and to the consequent freedom of man.

It is a common impression, that the people of South Carolina have exhausted their rich lands, and that they are moving away from poor ones, yet nothing can be more erroneous. They commenced upon poor soils, as has been done in every country of the world, and they are now flying from meadow lands capable of yielding the finest artificial grasses, of which they have millions of acres untouched—from river bottoms uncleared—from swamps undrained—and from marl, and lime, and iron ore, all of which exist in almost unlimited quantity. Nature has done for that State every thing that could be done, but man has, as yet, done nothing but exhaust the poor soils upon which the work of cultivation was first commenced, and therefore it is that their agricultural reports, and their newspapers repeat, year after, the question, "What shall the cotton planters do?"

"This," says the editor of the *South Carolinian*, in one of his papers now but a few weeks old, "is a question, daily asked by our planting friends. There seems," he continues, "at present great solicitude as to the policy which is to be pursued by them in pitching their next crop. We hear the cry of less cotton and more grain ringing from one end of the State to the other. We are not surprised that many planters who plant heavily should say their present crop will bring them in debt if the ruinous prices continue much longer. No planter can make both ends meet who receives only four

or five cents for his cotton, and has to pay the present exorbitant prices for bagging, bale rope, pork, mules, sugar, coffee, salt and iron. Mules are high, pork is high, bagging and rope are up to the prices of the twelve and fifteen cent times of cotton, and sugar, coffee, iron, and salt steadily stand at the old rates. If to expenditures for these necessary articles, the planter has to add his negro clothes, shoes, hats, and blankets, he will have nothing left to remunerate him for his labor. These are really matters which they should ponder over, and a system of planting which does not repay for the labor and investment of capital engaged in it, we reasonably think would soon be abandoned. But it will not be. Our planters are taught no other systems; they do not know how they will supply the vacuum which would be made by an immediate abandonment of the cotton crop. It would take several years before they could perfect, with the strictest economy, those arrangements which would render them entirely independent of it as a marketable crop. Therefore the step taken should be wisely considered before adopted, and the utmost caution should be observed in making, what we sincerely believe would be, if once begun, a radical change in our system of agriculture. We therefore advise for the coming year, a reduction simply of one-third of the cotton crop throughout the State; devoting at the same time, the land thus thrown out of the cultivation of this crop, to the production of grain; and the increase of labor which would thus be given, to the proper manuring and improved tillage of the cotton planted, and the general improvement of the plantation. By this process the cotton lands would be increased in fertility, and the increase of grain which would follow, would greatly facilitate the rearing of mules, hogs, cattle, and sheep; and in a short time the whole State could render itself independent of the exactions of our Kentucky neighbors, who kindly supply us with all such things, simply at the expense of the prosperity of our agricultural population; for, in practice, they annually sweep the country of all the surplus cash which is afloat, in payment for their bacon and mules. We would, if this system were adopted, soon be able to produce as much cotton on fifty acres as we do now on one hundred; and the investment of the agricultural profits of the State at home, although they might be small, would have a wonderful influence on general prosperity, and build facilities throughout our now desolate and almost unapproachable State, which would not only enchain our own sons to her borders, but induce capitalists to come into our midst, to make their dollars tell, by learning us a lesson of practical enterprise. We say to the planters, raise less cotton, more grain, more mules, more hogs; make your own negro clothes; raise sheep—make your own blankets; erect tanyards, encourage shoemakers and hatters—in fact, artisans of all kinds to settle permanently amongst you; labor at making your soil rich, and do not devote all your energies to wearing it out; and soon all things will go well with you. You will not make so many bales of cotton; in fact may not cut such a swell on your factors' books; but take our word for it, you will have happier slaves, richer lands, more thrift and fewer debts, and sleepless thoughts, to harass your hours of rest."

It is impossible to read this without being struck with the fact, that, while, from the exhaustion of her original poor soils, and her inability to clear and drain rich ones, that State is unable to produce cotton in competition with her neighbors, she is a large importer of other agricultural produce. Her chief city is supplied with hay from the North, notwithstanding her abundance of rich meadow land. She consumes the pork of Ohio, and she uses the mules of Kentucky; and thus, while selling her products at the low price that is necessarily consequent upon her distance from the place at which her food and cotton are to be converted into cloth, she buys of others

food, mules, &c., at the highest price, because of her distance from the place of production. She wastes labor and manure upon the road, and is then surprised at the exhaustion that results necessarily from such a course of policy.

The remedy for all this may, it is supposed, be found, first, in diminishing the quantity of cotton; but that is already diminishing so rapidly that the great cause of apprehension throughout the State seems to be that its cultivation must soon cease, because of inability to produce it. She desires to diminish the supply of cotton, while her people are flying from her to seek the west, there *to produce more cotton*. Second, the lands are to be manured, but we are not told from whence the manure is to come. The State has scarcely any consumers of agricultural produce except those who are engaged in its production, and their consumption yields but little manure. Her horses are always on the road, wasting the manure yielded by her hay and her corn, and her rice and cotton are consumed abroad, the consequence of which is, that of what is yielded by the land nothing goes back, and the land and its owner become impoverished together. Her population diminishes. Everybody is seeking to find elsewhere a better place for employing his capital and his labor. Under such circumstances it is useless to talk about artificial manures, and her swamps and river bottoms, in which manure has for ages accumulated, will not pay the cost of clearing for the raising of three or four hundred pounds of cotton to the acre. Give her a consuming population that will make a market on the ground for the tons of potatoes, and turnips, and hay, and the milk, and the veal, that will be yielded by rich soils, and the State will become one of the richest of the Union. It is population that makes food come from the rich soils, as we see to be the case in Belgium, and England, and New England; and it is depopulation that drives men back to the poorer ones, as is shown in Ireland, India, South Carolina, and Virginia. The people of Ireland are flying from each other as if from pestilence, and yet that unfortunate island, in which men are restricted almost entirely to the cultivation of the land, offers us now the chief European market for our surplus food, while South Carolina, destitute of consumers, is one of the principal markets of populous Ohio for her surplus products. Whenever the former shall begin to consume on the land the products of the land, she will have manure to keep in cultivation her poor soils, and she will acquire ability to clear and drain the rich ones, and then she may export hay instead of importing it. Ireland, like South Carolina, abounds in rich soils untouched. She has millions of acres of bog that could be drained with far less labor, and at far less cost, than have been required for similar lands in England, and it is estimated that three millions of these acres would afford food for six millions of people; but, also, like South Carolina, she is compelled to waste on the road the labor and manure yielded by the poorer soils now in cultivation, and is thereby rendered too poor to clear and drain the rich ones, which never have paid, and never can pay, the cost of preparation, without the presence of a consuming population requiring the potatoes, and the turnips, and the hay, of which the earth yields by tons, and not by pounds or bushels.

The third and last remedy is, that of "encouraging" shoemakers, and hatters, and artisans of all kinds to settle in the State; but it is difficult to see what encouragement can be given in accordance with the doctrines of South Carolina. All that she can say to such men is—"You may come among us, bringing with you your machinery, and applying your means to the erection of houses and mills, and so long as it suits our purpose we will give you labor, and food, and cotton, for cloth, but if prices abroad should fall, we will cease to exchange with you, and you may then abandon your

buildings and remove elsewhere. Our duty to ourselves requires that we should sell in the dearest market and buy in the cheapest one, and we can offer you no encouragement other than that we have stated." To this the maker of hats, or shoes, and cloths, or iron, objects. He says, "I can *compel* you to come to me in the large markets of Lowell or Manchester, with your cotton, and your food, for which I will give you hats, or cloths, or shoes, and if from failure of crops or other circumstances you fail to come, I have still the market of the world before me; but if I go to you, and you then fail to exchange with me, I can have no other market, and I shall be ruined. Make me secure that you will take my cloth, and give me for it the potatoes, and the turnips, and the milk, and the veal, required for my people, and the cotton required for my works, allowing me something for the use of my capital, and for my skill, and I will come among you; but until you shall do so, I will stay where I am." To do any thing of this kind would not be in accordance with the doctrine of buying in the cheapest and selling in the dearest market.

The "encouragement" that has, thus far, been afforded to those who have desired to make a market in the land of its products, may be seen from the fact that scarcely a mill, or a furnace, or a factory south of Mason and Dixon's line has failed to ruin its owner. The commencement of such works has always been hailed as likely to give value to both labor and land, but with the first revulsion in English trade, the market for its products has disappeared, because the first duty of the planter has been held to be that of buying in the cheapest and selling in the dearest market. It is unnecessary however, to go south of Pennsylvania to see the same operation. To bring into activity the coal mines of that State has required an investment of fifty millions of dollars, and the result has been that, while the consumers have been benefited by a reduction of one-half in the cost of fuel, and the farmers have been given a market for their food greater than that afforded by all Europe, the unfortunate people who paid for the labor by which the works were made, have been ruined, because, at brief intervals, the "encouragement" by means of which they had been led to engage in the work, has been withdrawn, leaving them and their customers, the employers of steam, to breast the changes produced in foreign markets by variations of policy that could not have been anticipated, and against which they could not have guarded. If "encouragement" means any thing, it means *protection against these revulsions*, and until South Carolina shall resolve to protect the artisans that she desires to have to come and make a market for her products, they will assuredly remain where they are.

That State is the poorest of the Union, for its size. It is the only one whose population diminishes. Virginia stands next. Both are, emphatically, the land of free trade, which consists in being *compelled* to go abroad to make exchanges that they would gladly make at home. Such freedom is only *apparent*. In a natural state of things the awl and the last go to the hides and the food, and where they do not do so, it is because of some obstacle, the invention of man. Of all the States of the Union, South Carolina is the one in which the planter exercises the least volition as to the place at which he will make his exchanges—the one, therefore, in which he himself is least free—and the only one in which it is proclaimed that slavery is the natural condition of a large portion of mankind.* The *apparent* freedom of trade and the *real* freedom of man, do not, therefore, harmonize with

* After the suppression of the Peasant war in the fifteenth century, it was decided in the Hungarian diet that the slavery of the people should be "universal and eternal." This is the nearest approach to the South Carolina doctrine that I know.

each other. Passing from that State into Georgia, Tennessee, Louisiana, or Kentucky, and thence into the Northern States, we find with each step an increasing tendency towards protecting the laborer against the unceasing fluctuations consequent upon the existence of the artificial system of England, which has thus far been maintained only by aid of colonies whose inhabitants could be *compelled* to send the raw materials yielded by the great machine of production, to a distance of thousands of miles, by land and water carriage, in quest of the little and easily transported machines of conversion, the spinning-jenny and the loom, the awl and the last, with infinite loss of labor, and with certain exhaustion of the land: and with each step we find a corresponding tendency towards perfect freedom of thought and action in all classes, from the highest to the lowest.

If these views are correct, the true way to bring about the gradual abolition of slavery must be to endeavor to increase the value of Southern land and Southern labor, to the advantage of both master and servant; a measure that can be accomplished only by an increase in the ratio of spades and ploughs, and mills, and furnaces, and other of the machinery which constitutes wealth, to population. If the Southern man desires to do this, he *must* "encourage" the owners of such wealth to come, or to stay, among them, and the only manner in which this can be done, is to render them secure that they are not to be left high and dry at the first instant of change abroad. In no country has the plough prospered at a distance from the loom and the anvil. In none *can* it prosper, because where the machinery of conversion is distant, the loss of labor is *far greater* than would be the quantity required for the production of all the cloth and all the iron required for the consumption of those who produce the raw materials: food and cotton.

There is not a single county in Virginia or South Carolina in which there is not absolutely wasted, for want of regular demand for it, more labor than would make all the cloth and all the iron consumed in it: not one that does not waste on the road, and in the procuring of wagons, and carts, and horses, and mules, more than would be required to make all their cloth, and all their iron: not one in which the loss from the want of the manure that is wasted on the road and in distant markets, is not greater than the value, raw material included, of all the cloth and iron they consume: not one in which the loss from cultivating lands yielding 8 or 10 bushels of wheat, or 200 to 300 pounds of cotton, in sight of rich lands that would yield tons of potatoes, is not *double* the value of all the cloth and iron they can afford to buy. Therefore it is that the land-owner is poor, and the land is poor, and labor is of little value, and the laborer himself is cheap enough to be sold for exportation to other States in which the loom and the anvil are taking their place by the side of the plough and the harrow.

The way to the abolition of slavery is simple. It needs nothing but that we arrest the progress of depopulation by enabling men to live together, combining their exertions, and thus rendering them more productive of the commodities and things which are required for the maintenance and gradual improvement of their condition. By such a process the farmer and planter obtain the advantage resulting from the presence of prosperous consumers of food, and they are thereby enabled to clear and cultivate rich lands, enriching the poor ones with the refuse of the products of all, and thus increasing the productiveness of labor, and the value of labor and of land. In the effort to accomplish this, the farmer and planter need protection against the endless fluctuations of foreign policy, and the day is not, as I think, far distant, when it will be universally admitted that protection is emphatically a planter and farmer's measure. When that time shall arrive each day will

see an increasing tendency towards the perfect freedom of all classes, black and white, and towards the most perfect harmony and good-will among the various sections of the Union.

Properly examined, there is no difference in their interests, and there is no good reason why such harmony should not prevail. Every man that is kept in the factories of Massachusetts or New York, or in the coal-mines and furnaces of Pennsylvania, becomes a consumer of food—a customer to the farmer and planter. Every man that is compelled, as now, to quit those factories, mines, or furnaces, flies to the West, to become a producer of food or cotton, and therefore a rival to the farmer and planter. The more customers, the higher is the price of food and cotton, of labor and land. The more rivals, the lower are the prices of all. The great machine is the earth, and the great interest is that of the cultivation of the earth. The little machines are those which convert the food and the cotton into cloth. The great machine tends to attract the small ones, and in the natural course of things, the latter will always go to the former, with constant increase in the productiveness of labor and land. The system of England tends to compel the product of the great machine to come to the small ones, with vast loss of labor and manure, producing diminution in the value of labor and land, as may be seen in all her colonies. That disturbing cause tended greatly to produce our Revolution. It has alienated Ireland. It palsies Canada. It has ruined India, and the West Indies. It compels the people of the Union to fly from each other, and to raise cotton and corn in Texas and Iowa, when their labour might be twice as productive if employed in converting the cotton and corn of South Carolina and Virginia into cloth. It diminishes *by at least one-half* the return to, and the wages of, labor throughout the Union. The protective system, now almost universal, is but a measure of resistance on the part of those who cultivate the earth, against a great wrong, and when it shall come to be fully understood that such is the case, it will be seen that throughout the whole length and breadth of the land, among freemen and slaves, there is a perfect harmony of interests, and all hostility between the men of the North and those of the South will pass away.

The natural addition to our population is now almost 600,000, enough, if applied to the work of converting food and wool into cloth, and food and ore into iron, to make, *in a single year*, a market for all our surplus food. The immigration in a year has, however, already reached 250,000, and were it once distinctly understood that the producers of food and cotton were determined to obtain their cloth and iron from those who consumed their food while converting, on the spot, their cotton into cloth, and their ore into iron, it would soon reach half a million, embracing artisans of every description, and thus would be made a market on the land for all the products of the land. The Carolinian would then make his own coarse cloth instead of buying it, and he would export his food and his cotton in the shape of yarn, and the people of the Eastern States would then make fine cloths instead of coarse ones, and with each step in this process, the labor of man, black and white, would become more valuable, and all would become more happy and more free. Ten years of efficient protection *to the farmer and planter* in their efforts to seduce the loom and the anvil to take their places by the side of the plough and the harrow, would do more towards solving this great question, now esteemed so difficult, than “free-soil” votes and Wilmot “provisoes” could accomplish in a century.

I remain, dear sir, with great regard, yours very truly,

HENRY C. CAREY.

Burlington, Dec. 7, 1848.

NATHAN APPLETON, Esq.

A LARGE FARM FOR NEW ENGLAND—ITS USES AND PRODUCTS.

IN the Vermont State Agriculturist, is an interesting sketch of Mr. H. S. Morse's Farm, from which we extract the following, to gratify the curiosity of the southern reader.

There are perhaps few farms in our section of the country that, for beauty of location, natural advantages, and successful management, can be compared with that of Mr. Henry S. Morse, of Shelburne. It comprises about 1100 acres, lying in a body—the soil embraces every variety, without running to extremes in either direction. The rock which forms its base is the red sandstone, found commonly in the western part of Chittenden County. The strata of this rock, as well as of the soil, dip towards the east. Most of the land is rolling; the difference of level between the highest and lowest points being about 175 feet. The lowest land is the lightest, the heaviest clays being found at the greatest elevation—an arrangement very favorable to drainage, as *clay bottoms* are of all things most tenacious of water. Much of the land is quite stony, which affords another advantage, in furnishing abundant material for walls and covered drains, besides the mechanical and chemical improvement secured to the soil by the processes of degradation and decomposition. There is no waste land on the farm; the whole of it being available for pasture, if not for cultivation, excepting about 300 acres of heavy timber. The whole is valued at about \$40 per acre.

Mr. Morse's main object is the growth of wool, and consequently he raises only so much of other produce as is required for the support of the farm. He mows 250 acres, tills about 50, and pastures the remainder. His stock consists of 1700 sheep, and neat cattle and horses sufficient to supply the farm with dairy produce and perform the necessary labor. His produce last year was as follows: wheat 150 bushels, oats 300, corn 200, rye 90, potatoes 1500, carrots 200, hay 350 tons, sugar 1000 lbs., wool 5600 lbs., pork 3000 lbs., and 5 acres of peas used for feeding sheep, without threshing. He recommends the *Long John* potatoes as less liable to the rot than any other variety he has raised, and the experience of many others in this vicinity tends to confirm his opinion. This is not the very best kind for table use, being often wet; but this defect may be in a measure prevented by planting only on warm, light soil.

Mr. Morse has taken great pains with his meadow lands; his method being to spare no trouble and expense in preparing the ground in the first place, and then keeping it up by top dressing, in preference to breaking up anew. Much of his land was originally too wet. To remedy this evil, he has constructed *four and one quarter miles* of covered drain at different periods, at an expense of upwards of one dollar per rod, and finds it a profitable investment. He has likewise imported from abroad 36,000 cedar rails for fencing, and his boundaries may be known at once by the neatness and permanent appearance of his fences and gates. All his rail fences are eight rails high, with stakes like posts, connected by oak caps, and evidently proof against all assailants. He finds a fence made of half-wall, with three rails on the top, to be the most economical. *Whole* wall is soon thrown down by the frost.

Mr. Morse's sheep are a mixture of Merino, native and Saxony. Beginning with a flock of native sheep, he used Saxony bucks for a few years previous to 1837, when finding his fleeces rather light, he crossed with the Merino, and has continued to use Merino bucks ever since. His average clip is now a trifle over 3 lbs. He is a great advocate for feeding peas in the straw to sheep, and has fattened in this manner some of the finest wethers

ever exhibited at Brighton market. The expense of this mode is very trifling, much less than that of corn feed, as the difference in *preparation* overbalances the excess in *the yield* of the corn.

Some of the finest meadows on the farm have been formed from wet and broken lands, at great expense. In some cases he has constructed a drain at the bottom of a ravine, and then scraped down the banks so as to smooth the whole surface. His average yield of hay is a ton and a half to the acre.

On the whole, the farm of Mr. Morse may be considered a fair specimen of successful management, according to the system of our heavy wool-growers. We have, however, little doubt, that if this noble track of land were divided into several smaller farms, the product, under a man as skilful as the present, would be proportionally increased. Many of our farms, like Mr. Morse's, are too large. It is physically impossible for one man to tax to its utmost the capacity of so extensive a district. The entire product of this farm, for the past season, at present prices, would equal about \$5.00 per acre. Take from this the expenses, and we fancy the profit would hardly reach 6 per cent. on the capital invested. If it does, Mr. Morse must carry on his operations by a cheaper method than we wot of. If it does not, then are the prevailing notions of the unprofitableness of farming not without foundation. Here then is room for improvement. Surely our agriculturists will not continue to be satisfied with 2 or 3 per cent. when by a proper application of science and skill, a proportional profit might be obtained. But of this more hereafter.

SPRINGFIELD FARM.

RESIDENCE OF GEORGE PATTERSON, ESQ.

OUR worthy contemporary says in the preceding, "it is physically impossible for one man to tax to its utmost the capacity of so extensive a district."

If we could have had the pleasure of his company lately, we won't say on what day, under an "October sun," in a ride over a farm of 1600 acres, he would have seen that "one man," and one mind, is capable of laying down, and carrying out, with great precision of plan, and great exactness in the realization of results, the progressive improvement to very high capacity, from a state of extreme barrenness, a farm of 1600 acres of land. Where we remember to have seen large fields, barren in all except broom sedge, incapable of yielding twofold from the seed, are now magnificent fields of corn yielding more than 60 bushels, wheat more than twenty; and perfectly clean, well drained, splendid fields of grass. The fences all of locust posts and chestnut rail, or worm-fence of chestnut, eleven rails in height—which have cost probably not less than \$20,000.

You do not see here a single acre bursting with plethora, produced by the offer of a silver cup, and running away with all the manure that all hands could rake and scrape; but large fields of from 50 to 100 acres, taking each its turn, in a well-digested invariable system of rotation, but regularly improving from year to year, until at last it may be left to sustain itself on the solid foundation of its own renovated and re-established vigor and resources.

True, it has been done at great expense, but must not means always be adapted to ends? The chief instruments of melioration have been thorough draining, thorough tillage, and lime. The land has not been *scratched*, but *ploughed*. The drains have been made with stones from fields picked over

eleven times; and lime may have been applied at the rate of thirty or forty or even fifty dollars an acre; but at what price would you calculate the value of land that will give 60 bushels of corn, twenty of wheat, and two tons of hay to the acre? And besides, is there not some intrinsic value in the pleasing reflection, when you stand in your portico and overlook your broad acres, that I am not only "monarch of all I survey," but that, with its heavy crops, its improved flocks, and unequalled herds of cattle that wax fat and kick, *I made it all what it is?*

Any fool, if his purse is long enough, may turn his back for ever on the graves of his ancestors, and go to Kentucky or elsewhere, and buy a farm already rich and improved to his hands—but what money can buy the pleasing consciousness of having yourself restored to more than its pristine fertility and beauty, the beloved spot of your nativity, where, in joyous and innocent boyhood, you trapped the partridge, tamed the young squirrel, and tracked and shot the poor timid rabbit as he sat sleeping in his form on the sunny hill-side! But with some, there is no pleasure nor value in any thing but in *counting the almighty dollar!* And so does that become the very apple of their eye, that you shall see men ambitious of political distinction, eager for office, and ostentatious in some vulgar display of wealth, acquired without merit, and used in ways equally devoid of liberality and taste; who are yet too penurious to subscribe to journals founded expressly for the enlightenment of their own pursuit! What record should we have of improvements and discoveries in the art of cultivation,—what progress, in fact, could we hope for, if it depended on such men?

CULTURE OF CRANBERRIES.

THIS wholesome and palatable fruit might, we think, be made to give at once variety and profit to the labor of Southern agriculturists in many situations where it is totally neglected—even where nature seems to point it out as a matter worthy of particular attention.

Cranberries are growing wild near Annapolis and other parts of Maryland, but we are not aware that any farmer has taken the hint to improve them by culture. For those on his table he probably sends to the grocer, and the grocer to the New England farmer.

For the benefit of those who keep their eyes open, looking out for new things that may be turned to account in place of wheat, corn, and tobacco—tobacco, wheat, and corn—we give the following from the Vermont State Agriculturist, the editors of which will begin to think we are drawing rather freely on their newly opened fountain: but, since we would go to the worst sources for valuable knowledge, we do not see why we should refuse to draw it from the best.

The cranberry (*oxycoccus macrocarpus*) is a native of Vermont. It is found in many swamps and wet places, among the rushes and other plants generally occupying such grounds. It naturally prefers the soil and moisture of marshy districts, and is usually raised upon such; but instances are on record where it has been successfully grown on dry upland, and with a great improvement in the quality of the fruit. It is surprising that so little attention has been paid in our State to this very profitable crop. Cranberries, when once well set, require no care or culture; while they occupy most advantageously lands unfit for any other useful plant; yield from 125 to 400 bushels per acre; and command a ready market at an average of \$2 per bushel, with only the expense of gathering. This latter operation is now performed by rakes, so that, at a low estimate, an acre of cranberries may be made to produce more in solid cash than 6 acres of good corn.

We have received a communication from Mr. Abiezer Alger, of Bridgewater, Mass., in answer to some inquiries in regard to the cranberry; the substance of which, together with such information as we can glean from

other sources, we lay before our readers. Mr. Alger has taken several premiums for his crops of cranberries, from Massachusetts societies, and lives in a district where their cultivation is successfully carried on. He says: "The fall of the year is the best time to set out the vines. The soil (bog meadow) needs no preparation beyond a covering of sand about two inches deep. Take them up with the soil in which they grow, and set them out, two or three feet apart. After one or two years they will spread themselves over the whole ground, and will require no hoeing. I never knew an instance of their running out after they are once well set. It is beneficial to keep the water on them from December till about the first of April, and after that time to keep it level with the surface of the ground, so as to keep the roots moist during the first part of the season. If there should be a frost when the cranberries are in blossom, or before they begin to ripen in the fall, it will destroy the crop. You will probably have a few cranberries the second or perhaps not until the third year after planting."

A writer in the Massachusetts Plowman relates an experiment in planting cranberries from the swamps, on good corn ground, in hills far enough apart to admit the cultivator and clean hoeing. The transplanting was done early in spring; they bloomed about midsummer, and bore fruit the *same year*. The fruit was large and handsome, and many of the hills bore a pint of berries.

An article in the Cultivator for 1846, states that Sullivan Bates, of Bel-lingham, Mass., raises cranberries in great abundance by transplanting them from low grounds to high. He plants them in drills twenty inches apart, (does he plant *roots* or *seeds*?) and seven inches in the drill. His success was complete. He gathered from one acre about *four hundred bushels* of cranberries in one season. The soil must be such as will not bake. The superiority of upland cultivation has also been attested to by others.

The editor of the American Agriculturist says that Mr. William Hall, of Norway, Me., sowed the berries in the spring, on the snow, in a boggy piece of land about 3 rods square. The seed took well, rooted out the weeds, and produced accordingly.

The extract following is from the Farmer's Dictionary:

"The *oxycoccus macrocarpus* is readily cultivated by transplanting in spring the cranberry sods, or selecting plants and transferring them to a light soil, rather moist. The runners can be *layered*, or seed sown in the spring. They grow rapidly, covering nearly every thing, and are but little subject to the attacks of insects. The plants are set about 18 inches apart, in rows, and kept clean at first. The yield increases for several years, and becomes as great as 400 bushels per acre in five years, although 200 are a good average. The fruit is gathered by rakes, which seem to prune the plant at the same time. When the berries are intended for keeping, they should be rolled over a gently inclined plane of wood, to remove such as are soft and rotten. They keep well for a year in tight casks filled with water, and headed close. The fresh fruit commands \$1 50 per bushel in New York."

From these accounts it seems to be certain, that although the natural soil of the cranberry is the swamp, and great crops have been grown on such lands; yet it has been successfully cultivated on uplands, and with an evident improvement in the quality of the fruit. As the product is large, with but little outlay, it is well worth the attention of our agriculturists, especially when they may have a tract of land which cannot, without great expense, be made fit for any other crop. Doubtless there are many others of our native berries, such as the whortleberry, the blackberry, and the raspberry, which would repay cultivation; and if some one else does not anticipate us, we shall probably try them at a future day. We hope at all events, that our farmers will try the cranberry; it offers great inducements to the cultivator.

THE PROTECTIVE POLICY.

To the Editors of the Plough, the Loom, and the Anvil:

SIRS:—There is an honest but radical difference of opinion entertained by leading agriculturists on the best mode of promoting industrial pursuits, and more especially that of farming. In the earnest endeavor to foster a home-market by associating the manufacturing and landed interests in the same category of protection, one of the parties appears to underrate the incidental advantages of a commercial marine, and the no less paramount importance of foreign intercourse for the exchange of surplus commodities. The other party, as devotedly attached to what it considers a principle in political economy, contends that no system of policy can be just or profitable which does not affect alike every honest occupation, and which does not open the widest possible avenues to trade.

The comparison usually made between the actual condition of England and the United States is not altogether a fair one. The British empire may be said to rival this country in the extent of her landed possessions; and it makes no difference whether the colonies to which I allude be near or far distant from the centre of government. We find, then, that the same policy virtually actuates both the cabinet of London and Washington; and that is, to allow industry, as a general rule, to take the most natural direction. If Lowell in Massachusetts, is eminently adapted to manufacturing purposes, so is Manchester in Lancashire. If South Carolina, Tennessee, or Illinois are essentially agricultural states, so are the East and West Indies. It would be as impolitic to force manufactures in the latter as it would be to force agriculture in the former.*

In this aspect the prosperity of all nations in the main depends upon a happy adjustment or balance of trade; their object is to produce at the least possible cost the greatest amount of commodities which conduce to the comforts, or satisfy the wants of themselves and each other. Thus it happens that the duty and interests of nations, as of individuals, are identical and go together. Were the worst enemy of England in these United States to devise the most effectual means of prostrating her people and government, it would be by keeping out her manufactures through a prohibitory tariff. Her home-market (by which I mean not merely that of the British isles but of her colonies) would not suffice to consume the fruits of her industry; and many of her factories would necessarily stop, at a ruinous sacrifice of capital

*NOTE.—The subjects of Great Britain have as much right to establish the manufacture of cotton or woollen goods in the colonies, as citizens of the United States in Indiana or Missouri; but they find it more profitable, under existing circumstances, to invest their capital otherwise, and to labor for a better purpose. The only difference between them is that the citizens are free to make their purchases or exchanges wherever they choose, whereas the over-taxed subjects are restricted to the home-market. The protection, then, to certain manufactures in the British empire, which require a large capital, does no more good to Ireland or Canada than would a similar protection to Maine or Florida. A few favored spots would be monopolized by capitalists for manufacturing purposes, and the country immediately around would measurably flourish—at the expense of the whole country, however, which would have to pay a higher price for the articles thus protected. The invitation to English operatives to cross the Atlantic and to transfer their comparatively light machinery to where the more bulky agricultural implements and produce are located, would do very well, if they could accomplish that Herculean task and bring their masters' capital also with them: the foreign market would then be rendered unavailable on account of the higher prices ranging there than here at home. It may look like a paradox, but it is not the less true, that getting high prices for our labor or produce is not always a proof of doing a good business. Protection, like the Indian's gun, may cost more than it comes to, according to the old saying.

and labor. So would it be with the most important interests of this country, if England should prohibit the introduction of our agricultural produce.

Under the impulses of mutual convenience, villages and towns are thickly settled in almost every flourishing agricultural community throughout the land: the farmer, the shoemaker, the tailor, the blacksmith, the schoolmaster, the doctor and lawyer are thus brought into immediate proximity without any extraordinary or unconstitutional effort on the part of this government to produce such a desirable object. These settlements are forming in a manner unexampled, in countries where protection to particular branches of industry has been pursued as a political hobby for several generations. In this happy land manufactures everywhere abound, and meet with the reward due to a spontaneous growth of native industry. When in the natural order of things, factories spring up in the South, we are heartily pleased with the prospect of benefit to all parties concerned: a demand exists, or facilities are afforded by water-power, surplus population, &c., and we hail with delight the capitalist who supplies the demand. But how different is the case when, to accommodate or enrich a few thousand manufacturers of certain articles, several millions of fellow-citizens are directly taxed to the extent of the protective duty imposed. It is in vain to oppose the common sense of mankind by citing the acknowledged advantages resulting from proximity of markets and equivalent returns of manure from the consumers to the producers, because no artificial system or partial policy can adequately compensate, in a national point of view, for the loss occasioned by a restraint on the natural instincts of industry—a loss consisting of labor and capital misapplied or not turned to the best account. We admit that as far as Old England is concerned, or even New England, the concentration of labor and capital has produced the outward appearances of prosperity, but certainly not the reality of happiness in the mother, if it has in the daughter. However, until the first rules of arithmetic are proved to be fallacious, purely agricultural districts, if left to their own discretion, will continue to buy in the cheapest and sell in the dearest markets they can find, without respect to patriotic considerations: and they are right on principle. The planter who sells his tobacco at the highest price the world can afford to give, can also afford to pay the highest price for manure to renovate his land, come from where it will. The cotton-grower is the last to complain of things as they are, because in his case the most valuable portion of his produce is retained on his farm in the shape of manure. Those even in the West who dispose of their pork, corn, wheat, cheese, apples, lard, &c., in distant markets, have no reason to find fault as long as they are thriving, and find their land able to bear the draught made upon it. The cause of exhaustion in the old-settled Atlantic States, was an error which any of us might have made under the circumstances of bygone days, when land was cheap and abundant, when prices almost justified an abandonment of general rules in husbandry. The present occupiers of the soil have to retrieve past errors by strict economy, untiring energy, and the aids which science freely offers her votaries. The Marylander and Virginian require no extraordinary protection; or if they did, they are too proud to ask for privileges which they would deny their fellow-citizens engaged in other pursuits than those of agriculture.

“It is an ill wind which brings no one any good,” and if it should happen, in the course of events, that the unsettled affairs in foreign countries occasionally throws goods into this market at a great sacrifice, the consumers are benefited, although our large manufacturers meet with a temporary reverse in their business. But who can expect uninterrupted good fortune? Is government to be held responsible for the ups and downs of life, for acci-

dents by fire or flood, and all the ills which flesh is heir to? It has been regarded an injury to native authors to publish foreign productions of the press at half their original cost; it should be remembered, however, that where one American writer feels the effects of such competition, thousands of readers derive profit from the perusal. Let the manufacturers of novels and printed calicoes on this side the Atlantic earn public approval and success through their own merits, and not by protective enactments. Every branch of industry is indirectly protected by just laws, without the necessity of resorting to the narrow Chinese policy of holding as little communion as possible with our neighbors. When the colossal manufacturing establishments in England become a wreck, and the operatives reduced to a state of anarchy by the force of continental example, there will arise a necessity for availing ourselves of such resources as are now unprofitable. Our present attitude towards all the world is eminently liberal and friendly; our dealings with foreign countries are mutually beneficial: let us accept the gifts which God offers us and be thankful. If we are wise in our generation we shall hold fast to our present policy—the future will provide for itself.

R. S. W.

Washington County, D. C.

Notes on the foregoing, by the Editors of the Plough, the Loom, and the Anvil.

Does Manchester possess any natural advantage for converting cotton and food into cloth that is not possessed by Tennessee? Does not, on the contrary, Tennessee, having the cotton on the ground, together with the food, possess greater natural advantages than Manchester? Does not every county in Tennessee waste annually more labor of men and women, and boys, and girls, and horses, and wagons, *absolutely unemployed*, than would convert into cloth all the cotton produced within its limits? Would that labor be wasted if Tennessee possessed the spindles and the looms required for the work of converting it into cloth? Does not every county in Tennessee pay twice as much annually for the transportation of its products to and from Lowell and Manchester as would pay for the spindles and the looms required for giving employment to her surplus, and consequently waste, labor, in the work of converting the cotton into cloth? Is not that payment now made annually, and would it not, if *once* applied to the work of procuring spindles and looms, constitute a permanent addition to capital that would supersede in a great degree the necessity of further waste of labor? Were such an investment once made, would not every county in Tennessee obtain its cloth—and its iron too—in exchange for labor that is now wasted for want of employment? Would it not then buy its cloth cheaper than it does under the existing system? Would it not then have a greater demand for food, accompanied by a diminished necessity for applying labor to the production of cotton? Would it not then obtain in the market of the world a higher price for its surplus cotton than at present? Would it not *then* buy in the cheapest market and sell in the dearest one, and does it not *now* buy in the dearest and sell in the cheapest one?

Does not the planter now sell his products cheap and give his manure into the bargain? Does not this exhaust the land? Does not the land diminish in value? Is it not less valuable in Virginia and Maryland than it was forty years since? Do not men run away from it? Is not population stationary?

Does the planter "who sells his tobacco at the highest price the world can give," grow richer? Does he not, on the contrary, grow poorer? Is he not, even at this moment, meditating contrivances to shut out his Ohio competitor, lest he should himself be ruined? Is he not in danger of being driven from the cultivation of tobacco as the South Carolinian has been driven from that of cotton? If so, what then will be his resource? Will he not be compelled to abandon the land and fly to the West, as his neighbors have done? Will he not then be flying from the neighborhood of marl and lime untouched, and from the vicinity of coal and of water powers that would, if properly improved, enable him to produce all the cloth and iron that he could use while finding a market for all the food he could raise? Has not the system of Maryland and Virginia been one of universal exhaustion, because they have made no market on the land for the products of the land?

Has any revulsion taken place within the last twenty years, that has not had its origin in England? Have not revulsions been frequent? Have they not ruined three-fourths of those whose factories or furnaces have given such heartfelt pleasure at "the prospect of benefit to all the parties concerned?" Has not the effect been to ruin the small manufacturers throughout the country, and to *drive* the business of converting food and cotton

and wool into cloth into the hands of great capitalists who can afford to incur large risks, in the certainty of repaying themselves by large profits?

Does not every man who is shut out, or driven out, from a factory, a furnace, or a coal or iron mine, seek to raise food? Is not every diminution in the number of persons employed in converting food and wool into cloth, attended with an increase in the number of producers of food and wool? Is not every increase in the number of producers attended with an increase in the amount of surplus products, an increase in the difficulty of finding markets, an increase in the amount of transportation, and a diminution in the quantity of cloth and iron that can be obtained in return for a given quantity of labor? Does not every increase in the number of his customers tend to enrich the farmer and his land, and does not every increase in the number of his rivals tend to impoverish both? Is it not, then, a mistake to look at these revulsions as questions merely affecting "great manufacturers," when their immediate effect is, *as now*, to deprive hundreds of thousands of persons of the power of obtaining wages, and to compel them to choose between remaining at home in idleness, perhaps to starve, or to fly to the West, there to become rivals to the farmers and planters, to whom they have thus far been customers?

Finally—Does the power to consume cloth and iron, domestic and foreign, increase with the diminution of protection, or does it decrease? Was it greater in 1841 and '42, under low duties, than in 1834, '5, and '6, under high ones? Is it as great in 1848, under low duties, as it was in 1846, under high ones? Will it be as great in 1849? Did not the power to consume iron double itself in the period from 1843 to '47? Will it be *as great* in 1849 as it was in 1847? Had the tariff of 1842 remained untouched, would it not have increased almost fifty per cent.? Is not the case similar in the cotton and the wool trades? If so, are not the comforts of the people diminished instead of being increased by the reduction of those duties which were supposed to press so heavily upon the people?

We have put all these questions, not with a desire to press our correspondent to answer them publicly, but with a wish that he and many others, who entertain like opinions, should reflect upon, and provide answers to them, that will be satisfactory to themselves; and to enable them so to do with advantage both to themselves and their neighbors, we would recommend to their perusal the work to which we ourselves owe our instruction on the subject, entitled, "*THE PAST, THE PRESENT, AND THE FUTURE*," and that he may not apprehend that his judgment may be perverted by the perusal of it, we may add that the Editor of the *London Economist*, a powerful teacher in the school of free trade, speaks of it in the highest terms, awarding it the high praise of having overthrown the favorite and popular theory of Ricardo. We confess that it came over our own minds as the rising sun above the mists of the morning, clearing up subjects theretofore overhung with doubts and shadows, and revealing truths the more acceptable and agreeable because you are made to *feel* that here at last you *have the truth*, standing on the immutable basis of the natural law that belongs to the case! It is by the author of the same work of which M. Coquelin, among the cleverest of French writers on political economy, speaks so favorably, as reported by Mr. Walsh in one of his late letters, copied from the *Living Age* into the *National Intelligencer*.

Mr. Carey is, like our correspondent, a full believer in the advantages of *perfect* freedom of trade, and during many years he as fully believed that the course towards free trade lay in the direction indicated in the letter we have now given. Further examination satisfied him that the introduction of the system of protection into this country had resulted from the existence elsewhere of great disturbing causes, that must be removed before freedom of trade would become possible, and that those who most desired to see arrive the period when commerce should be perfectly unrestricted, were those who should most desire to see established an efficient system of protection by aid of which the farmer and planter might be enabled to attract the loom and the anvil to take their *natural* place by the side of the plough, with economy of time and manure, and with profit to the land and its owner. We pray our correspondent to study his work, and when he shall have done so, and reflected upon its contents, to favor us with replies to some of the questions we have addressed to him.

* *Gas for the Farmer*.—A steam-engine was lately erected on the farm of Barsalloch, for the purpose of threshing, and it was considered a wonder in its day; but what will be thought of a complete gas-work erected, and gas burning every night on the farm of Mr. Walker, Corsmalzie, Wigtown? It has been always thought that the residents in a town can only enjoy the luxury of gas, but this is a proof of the contrary; and it is more than probable that Mr. Walker's example will be followed by many more farmers here, especially if they acquaint themselves with the small outlay and trouble it costs, besides also the less risk of danger arising from carelessness of servants in setting fire to barns and stables, &c.—*Wigtownshire Free Press*.

AGRICULTURAL ADDRESSES, NUMEROUS AND VALUABLE.

Extracts from the Address of the Hon. EBENEZER JACKSON, delivered before the Agricultural Society of Middlesex County, at Middletown, Connecticut.

ONE might, with a pair of scissors and some discrimination, make up a monthly journal of extracts from agricultural addresses alone, delivered from year to year in the United States. A journal which would be more valuable, ten times over, to the farmer and planter, than certain slang-whanging party hebdomadals that constitute all the intellectual meat and drink (we might say garbage) of many in the country, who deny to themselves and their sons works designed and calculated to enlighten them in the very line of their chief and often their only profession. But, alas, the quadrennial distribution of patronage has made almost every farmer a seeker and expectant of office, of high or low degree—leading him to neglect his legitimate and reliable pursuit: just as the horse that gets an occasional and premature bite of sweet, succulent, and unsubstantial green food, afterwards pines away before a full rack of nutritious dry provender.

Far more useful would it be to the nation, if Congress would publish the extracted spirit of these annual contributions to agricultural knowledge, by such men as Marsh of Vermont, and Gray of Massachusetts, and Emerson of Pennsylvania, and Carey of Maryland, and many others whom we could name, than to spend hundreds of thousands of dollars, for which the farmer is taxed, to publish conjectural statistics of agriculture, and reconnoissances and reports connected with the bloody and barbarous art of war.

Our own difficulty, with sixty-four pages at command every month, is not in *finding*, but in so *selecting* as to do justice, and satisfy ourselves and the public, from the mass of useful matter that offers; and then, in respect of addresses, they are usually published and circulated by the societies for whom they are prepared, and therefore less needing a place in our columns. We have been rarely more agreeably entertained and instructed than in the perusal of the one from which we have cut the following passages, descriptive, at the time, of two drawbacks on the progress of agricultural improvement in the good old state of Connecticut, whose firm, moral "platform" was established in those days when, as we are told, the man who should dare, sacrilegiously, to "spit in the church," was made, under a certain code of laws, to stand with his *tongue in a split stick!*

The residence of the author of this extract, a gentleman of uncommon polish of mind and manners, is one of the most improved and delightful, in all that superbly beautiful region around Middletown, in praise of which too much cannot be said, when seen as we saw it, in the "sere and yellow leaf" and the soft mellow haze of an "October sun." As you approach the town over hill and dale by an excellent road—such as are only to be met with in the dense populations that *various* industry only can support—the landscape changes with every point of view, embracing, on every side, neat-looking homesteads in the midst of small, well-cultivated farms, divided into woods and meadows and small fields, all enlivened by flocks and herds and pigeons and poultry enough to awaken, as they did in the minds of those long shut up in large towns but who have been reared in the country, a lively remembrance of that period

"When nature pleased, for life itself was new,
And the heart promised what the fancy drew."

The breath of early frosts had touched the foliage with just chill enough in

it to bring out the lively and varied tints which lend to our forests such unrivalled beauty at that early period of the waning year, and as occasionally an autumnal leaf went twirling away before the wind to share the common lot of all perishable things, it might easily be imagined, as it has been made to say to the inquiry, "Where goest now?"

"The rude winds bear me onward
As suiteth them, not me,
O'er dale, o'er hill,
Through good, through ill,
As destiny bears thee.

"What though for me one summer,
And three-score for thy breath,
I live my span—
Thou thine, poor man,
And then adown to death!

"And thus we go together,
For, lofty as thy lot
And lowly mine,
My fate is thine,
To die and be forgot."

Yes, let us repeat that, for the cool, quiet, and healthful temperature of rural and moral life, commend us to a summer sojourn in Middletown or its vicinity, where he who listeth may combine the pleasures of occasional solitude, or relieve the ennui of continued retirement, with the conveniences and excitement of city residence. For this he may have recourse to the village coffee-house, the school, the church, the daily market, and the daily mail—

"Messenger of grief
Perhaps to thousands, and of joy to some."

Almost every residence, even in town, is surrounded with trees and shrubbery and vines and cultivated grounds, so favourable to repose and to healthful and refined recreation of body and mind; and if, moreover, you would see a lingering specimen of matronly dignity—a true type of those good old times that impressed on our domestic and public character the genuine stamp of virtue and patriotism, not yet quite obliterated in the "progress" of a larger liberty—seek, in that case, the privilege of paying your respects to the venerable relict of the patriot DANA, in the magnificent villa provided expressly by a wealthy son for the residue of her declining years. How refreshing to see opulence thus yet sometimes consecrated by filial piety, and fortunes well earned, yet better employed!

Middletown has, it is believed, attracted to its vicinity a portion of the wealth of Boston, to be there invested in summer retreats. One of the most prominent and admirable of these is the mansion and ornamented grounds of Mr. Lloyd of that city, in view from Mr. Jackson's door, and from whose address we have been led away by the enthusiasm inspired by the charms of the country where he dwells:—

"The agriculture of New England has heretofore been affected by two prominent causes, both of which have operated as extensively and prejudicially in this as in any other section of it. One of these causes has been the prevalence of a speculative spirit, which has tempted great numbers to prefer the delusive paths of commerce, or the crowded ranks of the learned professions, to the more sure, though moderate, prospects of agriculture. The fatal experience of the last few years has dissipated the dreams of thousands, who have gladly exchanged the harassing and uncertain toils of the counting-house, or the long-deferred hopes of professional reward, for the healthy, independent, and unfailing pursuit of husbandry. The same faithful monitor has awakened all classes of the community to the necessity of economy, and of establishing the founda-

tions of public and private prosperity, not upon the deceptive basis of commercial or financial speculation, but upon honest industry, solid credit, and moderate expectations. The evils which we have suffered, and still suffer, are undoubtedly grievous; but, if they have the effect to bring back the public mind to a healthy tone, and to establish a less fluctuating standard of value in the business concerns of life, posterity will have cause to bless the chastening hand which arrested us in the road to extravagance and ruin.

"Another form in which this impatient ambition has operated to retard our agricultural advancement, has been the emigration of the young and enterprising to the fertile regions of the west. At an early period of her history, the products of New England not only sufficed for the support of her population, but a considerable surplus was annually exported. The vast solitudes of the Ohio and the Mississippi had not then been invaded, and none had returned to inflame, by glowing pictures of their exuberant richness, that discontent to which human nature is so prone. But when the veil was rent; when the interposing forests had bowed before the swelling tide of population, disclosing boundless prairies of seemingly exhaustless fertility, what more natural than that the inhabitants of a stubborn soil should become dissatisfied with their lot, and rush to seize the tempting prize which nature so bounteously offered? But, like all extravagant hopes, how often have those of the western emigrant been doomed to disappointment! The difficulties and privations which attend settlements even in the richest territories of the west, and the diseases generated by the very fertility of the soil, have caused many to return to their early homes, and have convinced the rising generation that the inducements for removal are frequently outweighed by its disadvantages, and by those numerous comforts and privileges which the emigrant abandons when he quits the paternal homestead. Of what avail are cattle upon a thousand hills, if the loss of health be the price of their acquisition, or what is the advantage of granaries filled with corn, when plenty reduces its value to one-fourth of its price in New England? Such, too, has become the disorder and depreciation in the circulating medium of those States most favored by soil and climate, that this inconvenience adds no small item to the catalogue of the emigrant's disappointments. He looks back with longing eyes to his native land; he remembers its pure and wholesome air—its lovely scenery—its neat and comfortable dwellings—its peaceful villages—the abodes of law and order—and wonders by what fatuity he could have consented to deprive himself and his children of those manifold blessings. The present sound financial condition of the eastern section of our country, contrasted with that of any other portion of the confederacy, is a signal proof that the prosperity of communities does not so much depend upon local advantages as upon industry, economy, and education. People dwelling in high northern latitudes have always possessed more energy, and become more permanently wealthy and powerful than those of milder climate, and even among ourselves we may sometimes remark in the occupants of a rocky and difficult soil, more of thrift than in districts where the earth yields plenteously with little labor."

MR. CAREY'S ADDRESS.

As we anticipated, we have had the pleasure to find in the American Farmer, Mr. Carey's Address at the late first meeting of the Maryland State Agricultural Society, and, moreover, to find in its contents the full realization of what we expected in the way of pleasure and instruction. We might say of pleasure, *because* of its instructing and usefully suggestive character. The general interest of the occasion, it being the first meeting of a *state society*, as well as the vigor of thought and language that marks this performance—many of its suggestions being equally applicable to the whole country over which this journal spreads—as well as respect for the wishes of numerous and increasing patrons in Maryland, all combine to make it proper that this address be preserved in the pages of "The Plough, the Loom, and the Anvil."

If, in the mean time, we may indicate passages which struck us with most force, and yielded particular gratification, they were those in which the orator dwelt on the importance of *fulness and exactness in farm accounts*, and that in which he asks emphatically, and as it were in a tone of just resentment, "How long, sir, shall we continue to think that our agriculturists need no particular and especial training to fit them for their calling? That

mere physical ability, the capacity to labor, and that remarkable shrewdness which is almost the birth right of our race, are all that is requisite to lead them to distinction in their profession!"

Heartily do we rejoice to see from such a quarter a new impetus given to the motion of *that* ball. If agricultural societies will everywhere join in this inquiry, we shall soon have the right sort of answer from the representatives of farmers and planters, who are bestowing millions every year for diffusing information and instruction on subjects less civilized and national, and much less comporting with the public welfare; and right ready are we to hail the accession of Mr. Roberts' powerful pen to the same cause. May we not hope that his remarks, concise and to the point, in support of the power of Congress to appropriate public money for schooling in the use of the plough, as well as in the guidance of the rudder and the sword, may, through the president of the society, or some other heed-worthy channel, reach the members of Congress, along with copies of the resolutions unanimously adopted at a full meeting of the society, at the instance of Mr. Earl—in conformity, as it now appears, with the suggestion of Mr. Carey.

We will venture to say, on behalf of the author of those resolutions, that their phraseology was shaped not by any doubts of his own, but probably with reference to the different opinions which might possibly be entertained by some members of the society. The great point has been to *get the wedge entered*, and now, where, as in this case, an important result depends on a concert of movement, general and determined, we all know how much the success of such movements depends on *agitation*, especially by the public press. And, truly, what will not agitation effect in countries where public opinion challenges through the press the attention of public men? See what agitation did in England in a few years, even against the will of the agriculturists, in favor of "free trade"—a free trade under which our tobacco alone pays more duty than *ought* to be expended in the entire maintenance of this republican government.

We hope to see early signs of the force of public opinion in the sensibilities, however slowly awakened, of the representatives of the planter and farmer in Congress, where the agricultural committee of the Senate slept out the last session without *once coming together to confer on subjects expressly referred to them!* Even the terrapin, when torpid, or shamming to be so, can be put in motion when fire is laid upon his back; and we hope their agricultural constituents will adopt some such expedient to put their representatives in motion, driving them, when appropriations are asked for naval and military instruction, to refuse one dollar, until a like sum at least is given for instruction in sciences equally conducive to proficiency and to more *substantial honor* in the use of the plough.

With no leisure to study the question, we have always been of opinion that the best shape that could be given to appropriations for disseminating "a knowledge of the sciences for cultivating the earth," would be a *pro rata* appropriation among the States, to be, under their councils, used for that purpose, and that in each State should be established a school for *rearing teachers* on the plan of the West Point Academy, whose elites, according to General Jessup, are competent to convert the whole militia of the United States into well-disciplined soldiers in ninety days: and what, pray, would not men equally versed in geology, mineralogy, chemistry, mechanics, and civil architecture and engineering do towards disciplining the labor and economizing the materials and capital employed in agriculture? Why, then, should, we repeat, not the cultivators of the soil, who have the ball in their own hands, determine that *it shall be done?* Let us hope that a change is coming "o'er the spirit of their dreams." Let no dispute be raised in the

first instance about details; but get a simple appropriation for a *pro rata* appropriation out of the proceeds of the public lands or the common treasure for each State, restricting the State only to its application to *agricultural education*, and leaving all else to the people of the States, to determine in what manner to apply it. This need not interfere with the establishment of a home or an agricultural *department* at Washington; and why should not this interest, greater than all others united—the one by and on which all others live and move and have their being—have a department to represent and defend it, and to give a voice in the public councils, as well as the army and navy? There ought to be both a department of agriculture and a department of manufactures, for the collection and arrangement of the statistics of both. With more light, their interests would be seen to harmonize instead of conflicting, and those at the plough and the harrow would see that, as between them and those at the loom and the anvil, a wise policy of the country would tend to fuse and amalgamate, instead of separating them from each other, and a degree of high and permanent prosperity never yet dreamed of, would be the common destiny of all.

OUR TOBACCO TRADE WITH ENGLAND.

FOR THE CONSIDERATION OF THE PLANTER.

WHILE we are allowing European governments, and especially that of England, to play at “see-saw” with our great industrial pursuits, so that, like children on a plank, with a pivot in the centre, our manufacturers are constantly singing, “Here we go—up—up—up”—and, “Here we go—down—down—down,”—these dear lovers of what they call “*free trade*,” are treating the cultivators of one of our great staples, as described in the following extract from Mr. Dodge, the indefatigable agent of that interest, to Mr. Webster, when the great expounder was in the State Department:

“Whilst in London I prepared and sent to my highly esteemed friend, the Hon. Mr. Jenifer, chairman of the select committee on the tobacco trade, an address to the tobacco planters of the United States, in which I presented the question of our tobacco relations with Europe in several new points of view, and by which it will be seen that Europe obtains over \$35,000,000 revenue on an amount of our tobacco, costing in the United States less than \$7,000,000; whilst we have admitted, free of duty from Europe, an amount of its produce more than equal to one-half of all the exports of our domestic produce to the same countries of Europe; and, as the annual average amount imported into the United States from the various countries of Europe, from 1st October, 1835, to 30th September, 1838, was \$97,251,334, of which \$54,597,477 was subject to duty, and as the total average amount of revenue obtained by the American government for the two years ending 31st December, 1838, by the importations from *all parts of the world*, was \$16,866,017, it may safely be estimated that, as a large proportion of the articles coming from Europe were admitted free of duty, that the revenue which the United States has derived from the importations from Europe has not exceeded \$10,000,000 annually; so that, if this revenue should be equalized on the total average importations from Europe, say \$97,251,334, it would only amount to a duty of about ten per cent., whilst Europe is obtaining a revenue of at least \$35,000,000 from our tobacco alone. There is certainly no reciprocity in such a state of things.”

The consumption of \$10,000 of segars daily in New York, proves how much more freely iron and coal, and cloth and leather, and hats, and every thing else that represents and is made up in fact of the *products of the plough*, are consumed when they are made in *our own country*, near to the plough. Yes, the estimate is \$10,000 worth daily. If the farmer has the iron manufactory close to his farm, he puts iron to a thousand uses that he would not if it had to come from England, even though there he might get it cheaper apparently, but not really, because he cannot in that case pay for it half so easily as if the people were close by him, who would consume his produce while they made his iron. For want of the iron-making consumers close at hand, he uses wooden keys to his ox-yokes, and wooden hinges to his doors and gates, and wooden axletrees to carts, and rope instead of chain traces. But the tillers of the soil, thank God, are beginning to learn a thing or two! We can see that even by the way that the Plough, the Loom, and the Anvil, is spreading over the whole country, and especially in the South and West.

REARING OF YOUNG RACING STOCK.

UNDER all circumstances, there is too much resemblance between the speculations of the Turf and a lottery; but, as the prizes it exhibits are valuable, the most effectual means of obtaining them should be adopted. It signifies little what care and circumspection have been exercised in the selection of stallions and mares, with a view of breeding racers; the prospect of success is very limited indeed at the present day, unless the produce be reared according to the improved system acted upon in our first-rate racing establishments. Such was the pertinacity of opinion, combined with long-established prejudices, and in direct opposition to the daily acknowledged fact of dry and warm countries having been the first to produce the horse in perfection, that it is only within a very few years that young thorough-bred stock has been reared in the manner in which it should be reared. A thorough-bred colt may now be said to be in training from the day on which he is dropped, so great is the care taken to force him into shape and substance.* Not only is he drawing from the teats of his dam the milk of a highly fed animal, and consequently, in itself highly nutritious, but, before he is twelve months old, he eats nearly two bushels of oats per week. The time for expansion of frame is youth, and, when we see a two-year-old at the post, with eight stone four pounds on his back, which is to be seen in every meeting at Newmarket, and looking like a horse able to carry a light man after hounds, we most cordially assent to the answer given by the most experienced Newmarket trainer of the present age to the question, What is the best method of rearing a racing colt? "First observe," said he, "that the blood, or cross, is good; secondly, breed him as you would a sheep, from a roomy dam; and thirdly, give him as little green meat as possible, and as much corn as he will eat." The trainer we allude to has now retired, but he had all the young stock of the Duke of Grafton, and many of the first and most successful sportsmen in England, through his hands, and the annual disbursements of his establishment exceeded ten thousand pounds. That dry, and "hard food," as it is called, is the natural food of the parent stock from which our race-horses are descended, is beyond all doubt; and that the firmness of their acting parts is attributable to that, and to the warmth and dryness of the climate, is also admitted. Is it, then, to be wondered at, that breeders of horses, and not only of race-horses, have at length found out that dry food and warmth have the same effect in the Temperate as they have had, and now have in the Torrid Zone? that they have discovered that, when colts are bred on rich succulent food, and subject to a humid atmosphere, the bulk of the body increases out of proportion to the strength of the bones; and to these predisposing causes are also to be attributed most of the false points which we find in horses, such as fleshy shoulders, deficiency of muscle, weak pasterns, and flat feet? Virgil discovered this nearly two thousand years ago, and, when speaking in praise of Epirus, as suitable to the breeding of horses, emphatically observes:—

"Continuo has leges æternaque fœdera certis,
Imposuit natura locis."

Georg. 1, l. 60.

So careful, however, now are some of our principal and most successful breeders of race-horses to avoid these evils, that not only has a thorough-bred

* An American gentleman, who visited several of the studs in the neighborhood of Doncaster, thus expresses himself: "I was much astonished to find that the little foals of a few months old had shoes on, and gave evidence of having been carefully groomed from the time they were able to bear this attention. I think I saw foals of eight months old as large as our yearlings—yearlings as large as our two-year-olds, and two-year-old colts as large as our three-year-olds."—*New York Spirit of the Times*, November 28, 1840.

colt eating grass *ad libitum* become a rare sight, but he is not suffered to be exposed to rain, even in the midst of summer, no, not even to a temporary shower. The effect of rain upon horses' backs is found to produce the worst of diseases—glanders, for instance, as is well known to all cavalry officers who have been on service with their regiments; and it cannot be innocuous to the highly-bred foal, or colt. That he should be sheltered from the cold of winter, need scarcely be insisted upon here, although we are rather inclined to think, that, in the generality of breeding establishments, he is more exposed to weather in the winter than he ought to be. There is no objection to a *moderate* allowance of carrots, and a little green food; but, according to the old Greek proverb, *Ἄλλος βίος, ἀλλὰ διαίτα, another life, another diet*, we must hear no more of the "natural food" of an animal insisted upon by many, who is so far called upon to outstrip the laws of nature as to begin to work at fourteen months old, and to appear at the starting-post at two years old, displaying the form, character, and strength of one nearly arrived at maturity. Neither is the land on which a racing-stud is situated oftentimes sufficiently considered; but a want of such consideration has been the source of great loss. It is in vain to expect success unless upon that which is dry, and consequently of sound subsoil; and what is termed "upland ground" is most favorable. Walls, independently of security, are preferable to hedges, for enclosures to breeding paddocks, as the latter harbor flies, which are very injurious to young stock, and also to their dams, in hot weather; but the present small dimensions of breeding paddocks, not exceeding a quarter of an acre, and many still less, preclude the use of hedges.

Racing colts are physicked when foals, and periodically afterwards; their hoofs, also, are pared with a drawing knife, that, by shortening the toe, the heel may have liberty to expand. Physic, in this case, may be termed the safety valve, and such it is in reality, for this system of forcing nature cannot be free from danger. It is found, however, materially to promote growth, as indeed does the work that our racing-colts perform at such a very early age. Muscular action produces muscular strength, and growth will be the result. We have seen a colt that measured upwards of fifteen hands in height on the day twelvemonth which he had been weaned from his dam.

Racing-colts can scarcely be handled too soon:—

"Dum faciles animi juvenum, dum mobilis ætas,"

as Virgil says of the bulls; and Horace illustrates the necessity of early erudition of the human species by the excellence of horses which have been well broken in when young. The first breaking in of colts is also alluded to by Ovid, who, like Horace, is in favor of very *careful* treatment of them, and reminds us of the necessity of it in the following beautiful line:—

"Frænaque vix patitur de grege captus equus."

The system of breaking colts, however, is not only thoroughly well understood in our racing establishments, but is accomplished with much less severity than it formerly was, and consequently with less danger to the animal.*

* This would seem to be a proper place to insert an extract which we remember to have published some eighteen years since, in the Turf Register and Sporting Magazine, from a letter received from that eminently sagacious and successful turfman COLONEL WILLIAM R. JOHNSON—cut out by nature to be a great man in any walk of life which accident or choice might have led him to adopt. And pray, courteous reader, why should we not stop a moment to pay our humble tribute to one, of whom Jack Randolph said—if he had not chanced to eat lobster for supper the night before, Henry would not have been beaten, nor the South *eclipsed*, in the memorable race for \$20,000, on the, among turfmen, ever to be remembered 27th May, 1823—only think—twenty-five years ago! alas how time slips away! Well then of the Colonel, with his white hat, if he were dead

The time of foaling is one of great interest to owners of valuable brood mares, and particularly so when the produce is engaged, perhaps heavily, or when they are of what is termed a running family. The attention of the stud-groom is directed by sundry forewarnings, the most palpable of which is what is called "waxing of the udder," and appearance of milk, which generally precede parturition two or three days, but in some instances more. As the mare brings forth on her legs, there is little fear of the foal being overlaid by the mother; but the less she is disturbed the better, lest she should trample on its legs. Her treatment afterwards is now so well understood, that nothing requires to be said about it; but a bran mash, with from

who would not agree with us in saying he was a man of very remarkable powers of intellect! And what if his great skill and judgment of man and horse have been displayed chiefly on the race-track; who doubts that with his intuitive quickness of perception, and command of his temper, he would have been equally distinguished at the Council-board or the battle-field? Where has the man been known to excel him, wherever he has been tried, for quickness of apprehension and soundness of judgment in matters of business—in convivial powers and in true-hearted hospitality! Who ever got within his bailiwick, that did not find a seat at his mahogany, and there forget, for the nonce, this uncharitable world and its stratagems and cares. Of all the men we have known, none have excelled him in lightning-like velocity, if we may so say, in the action of his mind—and for judgment how to bet, on a view of the horses after the first heat, who could you name to match him? Be the question or the problem what it may, his turn and habits of mind are such as to bring him on the instant to a conclusion as correct as if he were to ponder it, as some would, for an hour. It is related of him, that he was once standing on the Capitol grounds at Richmond, conversing with his friend D. B., when an old associate of theirs, who had seen better days, came along, somewhat out at the elbows, and first approaching B., asked him to lend him \$5 until next day. Really, said B., I have not as much about me, or I would with the greatest pleasure. As quick as thought, Colonel J., knowing what would come next, said—"Here B., I'll lend you \$5." Perhaps this is no place for such anecdotes, but yet we *do* like, be it confessed, to go even a little out of our way, and at the risk of being charged with flattery, to show kind remembrance of old friends, who, in days of brighter sunshine, it may be for us both, we were always glad to take by the hand with a true grip—to seize such opportunities, when they do occur, to speak well and justly, of those whom we esteem, is in fact one of the few enjoyable privileges of the chair Editorial, and it may be when the old Colonel is finally "let down" or trains off, we may have gone before him, and therefore choose we not to wait for, we would fain hope, a distant day—so "here's a health to you, Tom Brown,"—ah! for one more reunion, as in "auld lang syne," under the spreading branches of the venerable elm at the —, the "boys," those who are still on the track and see this, will know where—Minge, "Oh! don't you remember?" Shade of Tyrone Powers, do the shadows of friends ever meet to repartake, as in their halcyon days, "the feast of reason and the flow of soul?" But "away with melancholy," and so, returning to our extract on rearing colts. The Colonel wrote us many years since on the management of young stock for the turf; and instead of a long yarn, in his own brief and sententious way, said—

"I keep my colts tolerably fat, though not overloaded with flesh—turn them out in good weather, and keep them up in bad—taking care not to let the horse-colts smell or see other horses more than can well be avoided."

While we are on this subject, we will add some judicious observations, sent us by a friend, in a Report of the Committee on Mares and Colts, at the late exhibition of the Onondago County (New York) Agricultural Society. The observations apply to the rearing of the best coach-horses, a matter justly esteemed of great importance in that county, and hence the heavy tribute paid to it annually by all the Southern States for harness-horses.

"As to the management of mares while breeding, it is the opinion of your committee that if the owner of the mare will drive her himself—and drive her prudently—not at heavy draught—not at breaking up green sward for instance, but at cross ploughing, harrowing, and ordinary farm wagon-work—careful always to drive her slow on the road—the mare better be worked even up to the week of her foaling, than to lie still; but she should in all cases be allowed to rest at least one month thereafter. As to her feed while breeding, we think she should be kept on simple, cooling food during the period of gestation, up to the fifth month certainly; after that when the fetus is fully formed and commences to grow rapidly, she should have more nutritious food—a moderate allowance, say six or eight quarts of oats or oatmeal per day should be given her. This, you may rely upon it, will insure a larger, better developed and more thrifty foal than the ordinary

four to six ounces of nitre dissolved in it, given as soon as she has brought forth, keeps off fever. The great preventive of accidents to foals, is the simple contrivance of rollers on the sides of the door-frames, which secure them from being injured as they rush out of the hovel or shed by the side of their dams, especially in cases of alarm.

Some persons prefer purchasing to breeding young racing stock, and it is difficult to determine between the advantages and disadvantages of the systems. It is true that, in the first case, the purchaser has a certainty of some return for his money, inasmuch as he gets his colt or filly, which the breeder may never get, after incurring a great expense on the mare. The price of a promising yearling, from three to five hundred guineas, is a large sum to begin with; and we cannot, in this instance, say with Varro, "that a good horse is known from the first." If purchased after he has appeared in public, at two years old, of fashionable blood, and having run in front, he is not to be purchased much under a thousand guineas, which is a large sum to realize, when added to concomitant expenses. Nothing but the immense amount of stakes for young racing-stock can justify such a speculation. For example, in 1824, a filly of the Duke of Grafton's won four thousand four hundred and fifty guineas, public money, by only starting twice.

One of the principal drawbacks from the prospects of success in a racing establishment, is a complaint called the Distemper, a sort of catarrhal fever, the cause of which is generally attributed to atmospheric influence, and also to any other which may produce what is termed a cold. Unlike common catarrhs, however, the distemper will run through a whole stud of horses; and if it do not, as it frequently does, end in an affection of the lungs, it leaves a lassitude behind it, which requires some time to remove. As a hot sun, with cold winds in spring, and the humid air of the autumn, are the chief predisposing causes of this complaint, an even temperature in the stable, and warm clothing when out of it, together with avoiding exposure to extremes of heat and cold, are the best safeguards against its attacks. It may be compared to a frost over the blossoms, which in one night blasts all former hopes of a crop.

A most interesting event to a breeder of thorough-bred stock is the trial of their racing powers, which at once decides the question of their being worth the expense of training to run or not. There is a great deal of judgment necessary in the act of trying even old horses, but still more so is required to form a just estimate of a young one, from the difficulty of knowing when he is quite up to the mark, as well as of keeping him there till it may

straw-stack system of keeping breeding mares. It has been discovered by the great chemist Liebig, that of all the food of animals, there is none that contains more of the constituents of muscle than oats, hence their importance to the growing fetus.

"As to the management of colts, we would notice another, perhaps more prevalent and more mischievous error than the preceding; we allude to the idea that a colt as soon as it is weaned must be toughened, by being fed sticks and straw, and left with no shelter warmer than a stack or board fence.

"This abominable heresy we desire to annihilate. There is no fact connected with rural economy to which we challenge the experience of the most stingy farmer even with more confidence, than that all animals require a generous supply of wholesome food, and a warm, dry bed in winter, particularly during the first year of their lives.

"Let any one who doubts try it this winter. Let him give his colt during the very cold weather at least a quart of oats or oatmeal per day, and he will find it repaid more than four-fold in the superior size and symmetry of his horse. An animal that is but half-fed and exposed to all kinds of weather, (particularly while young,) becomes rheumatic—is drawn out of shape, and grows up ill-favored and comparatively valueless. The secrets of the great success in breeding horses for which the Arab has always been distinguished, are in the fewest words these: 1st, he never sells a mare; 2d, he never starves a colt."

Edits. P. L. & A.

be convenient to try him;—and it is not always so, owing to bad weather, the trial of young things being generally very early in the year. This subject, however, coming more properly under the head of Training the Race-horse, will be treated of at a future time.

But we have not yet spoken of the form of the race-horse, which we will now describe; and as nothing can be considered characteristic of a species but what is perfect of its sort, we will so far endeavor to make the pen perform the task of the pencil, as to portray his cardinal points, as nearly perfect as such means will admit of. Nature herself, perhaps, rarely exhibits perfect models in the animal world, leaving the completion of her skill to human sagacity; neither is undeviating symmetry absolutely necessary in a race-horse. In every composite, however, beauty consists in the apt connection of its parts with each other; and just proportions in the limbs and moving levers, coupled with that elegance of form *in which there is no unnecessary weight to oppress the muscles*, so peculiar to the highly bred race-horse, is all that need be insisted upon in a racer. It is nevertheless hard to say what horse will make a racer, and also what will not, until put to the test; for how many horses have appeared which the eye of the sportsman would not wish to study, and yet have proved themselves very capital runners? This excellence, however, in those “cross made horses,” as they are termed, not misshapen ones, arises, as has been before observed, from their possessing parts conducive to speed and action, not, perhaps, very strikingly displayed, but by means of greater length and depth, and a peculiar manner of setting on of the acting parts, enabling them to excel others, much handsomer to the eye, but wanting in either proper declivity, length, or, what is still more probable, in circular extent of those parts. Thus, as the wise man, according to the Stoics, alone is beautiful, so is a race-horse to be admired solely for those points which make him a good race-horse.

Although symmetry and proportion form a perfect figure, and they become deformities when any of the component parts exceed or fall short of their due proportions, yet it is not always necessary to measure by the standard of perfection. Suffice it, then, to state the generally approved points of the English race-horse.

We commence with the head, not merely because it has always been considered as the most honorable member in the human frame, but as it is one of the leading characteristics of the thorough-bred horse. His broad angular forehead gives him that beautiful expression of countenance which no other breed possesses; and the tapering of the face from the forehead to the muzzle forms a striking contrast with the large face of the cart-horse, and the forehead scarcely wider than the face.



Head of a Racer.



Head of a Cart-horse.

The race-horse should have a black, lively, and rather prominent eye which denotes a sound constitution; and as horses do not breathe through

the mouth, but only through the nose, the nostrils should be rather expanded and flexible, that they may accommodate themselves to quickened respiration, as the speed of the animal increases. But they should not be over large. "*Naribus non angustis*," says Varro, and he is right. Beauty in the head of the race-horse, however, is only a secondary consideration to the manner in which it should form a junction with the neck, as on that, in a great measure, depends the goodness of his wind in a race. His jaws should not only be thin, and not approach too near together at the throat, but they should not extend too high towards the onset, or they will impede his freedom of breathing. The neck of all horses should be muscular; but what is called a loose neck, in a race-horse, is not so objectionable as in a hunter, and is considered as indicative of speed. But as the head of a horse may be called the helm which guides his course, changes and directs his motions, it is not only desirable that, as he cannot move his head but with the muscles of his neck, those muscles should be pliant, but that he should also have what is termed a good mouth. It is asserted, that the weight of the head and neck, the effect increasing with their distance from the trunk, adds to the speed of the horse by throwing his weight forward; but this is no argument for *additional* weight or length in those parts, which ought to be duly proportioned to the trunk. The neck of the race-horse should be in no extreme, but rather long than otherwise, and not too much arched.

As horses are said to go with their shoulders, these may be considered as highly important points. They vary in form more than any other part of the horse's frame. Those of Flying Childers rose very high and fine towards the withers; whereas a firkin of butter is said to have rested, unsupported, on the withers of Eclipse, when in covering condition. Upright shoulders, however, being an impediment to speed, obliquity of the scapula is absolutely necessary, but we do not insist upon their running fine at the withers. We consider the shoulders of Eclipse to have resembled those of the greyhound, wide at the upper part, and nearly on a line with the back. Large, or even what are called coarse shoulders, contribute greatly to strength, and are no impediment to speed, if there is proper declivity of the scapula or shoulder-bone. The withers, when high or thin, should enlarge gradually downwards, and there should be four or five inches between the fore-thighs, but less between the fetlocks or ankles and the feet.

The true position of the limbs is a most material point in the race-horse, as it causes him to stand over more ground than one which is otherwise formed, although possessing a more extended frame. One of these essential points is, the setting on of, and length in, the fore-arm, or part from shoulder to knee in the fore-leg; and another is the declension of the haunch to the hock in the hind-leg, which is termed "well let down in the thigh." It is from having those points in excess that enables *the hare* to describe a far greater circle, and cover more ground at one stroke than any other animal nearly double her size. In fact, the arm should be set on at the extreme point of the shoulder, which ensures this act of extension, and also adds to the declivity of the shoulder. The knee should be broad and flat, and if appearing somewhat prominent, the better. All the Herod legs had prominent knees, and no legs stood work better than they did. Concussion in galloping is diminished in legs so formed. The cannon or shank, from knee to fetlock, should be of moderate length in the race-horse, (longer than in the hunter,) and, above all, the leg should appear flat, not round, with sinews and bones distinct, and the former appearing to be very firmly braced. The pastern of the race-horse should be long, lax, and rather small than otherwise; length and laxness serving as springs, and smallness contributing to agility, and consequently to perseverance or bottom. Some comparison will

hold good between this point in a horse, and the "small of the leg," as it is called, of a man, in contradistinction to the calf. Under the pressure of fatigue, no man complains of the "*small* of his leg" giving him uneasiness, but his calves often give him notice that he has done too much. The hoof of the race-horse should be of moderate size, in proportion with the leg above.

We have already alluded to the bone of the thorough-bred horse, which much exceeds that of any other variety of this animal in its compactness and solidity; which qualities, as the span in the gallop must give a shock in proportion to its length, are admirably adapted to the race-horse. We cannot say of him, what Job said of the behemoth, that "his bones are like bars of iron;" yet, as in proportion to the muscular power of the animal, is the dense quality of the bone, that of the race-horse need not, nor should not, be large. Experience teaches us, that bones very rarely break; fractures, when they do occur in racing, being almost invariably in the joints; and rather small bone in the leg of a race-horse, supported by broad and well-braced sinews and tendons, placed distinct from the bone, and forming what is called a flat and wiry leg, is most desirable, and found to be indicative, not only of speed and endurance, but likewise of soundness in severe work. It is only those who are ignorant of the anatomical structure of animals that fix the basis of strength in the bony substances alone, not considering the muscular appendages, which constitute the mainspring of strength and action.

As the strongest bodies owe their vigor to the milk they receive in their infancy, our recommendation to keep brood mares well will not be considered as unsuitable; but the connection between milk and bone is also deserving of a remark. When animal bones are divested of their oil and jelly, the earth which remains is chiefly lime, united with phosphoric acid. It is worthy of notice, that phosphate of lime is found in abundance in milk. This seems to indicate, that Nature thought fit to place, in the first nourishment of animals, a quantity of osseous matter, with a view to the necessary celerity of the formation and growth of the bones in the earliest stage of their lives. This is one of the numerous instances of the beneficence of the Creator, exemplified by the science of chemistry, and shows the advantages to be expected from a good flow of milk in a mare that is well fed; and it is a remarkable fact, that the nearer the female approaches to the period of parturition, the more is the milk charged with this calcareous phosphate. Nor is it until the digestive organs of the foal are sufficiently strengthened, to answer the purposes and work of animalization, that this earthy salt disappears.

But to proceed with the form of a race-horse. The race-horse should have length, but the length should be in his shoulders and in the *quarters*; that is, the part posterior to the hips, and not in his back. To give him that elegance of form for which he is so conspicuous, there should be no acute angle nor any straight line. His shoulders should go into his neck at the points, *unperceived*, and his back should sink *a little* behind the withers, which gives his rider a good seat, and does not in the least diminish his strength. On the contrary, horses with very straight backs are generally deficient in their fore-quarters, as well as in their action; and we have known some very good racers even what is termed hollow-backed.* There should be a little rise in the loins, just behind the saddle; but the race-horse should not be too closely ribbed up. The ribs should stand out from the spine, producing what is

* Monsieur Tonson, for an instance.—*Edits. P. L. & A.*

called a round barrel, together with depth of carcass, a formation which not only gives strength of body and constitution, but, by admitting the intestines to be comfortably lodged within the ribs, imparts freedom of breathing, activity and beauty to the whole frame of the horse, other parts being proportional. These useful points, however, must not be carried to an extreme, or the horse may be what is termed "too heavy for his legs;" and we know that light-bodied horses save their legs much in their gallops, which accounts for mares and geldings standing the severity of training to a later period of life than stallions, by reason of the former requiring less work, from not generally carrying so much flesh as the latter.

There is no part, excepting the head,* so truly characteristic of high breeding in the horse, as his haunch. If a little of the elegance of the parts, however, is diminished by the width of the hips, it will be recompensed by increased strength in the animal, as is the case with broad-shouldered men; and when accompanied with good loins, these protuberances of the ilium can scarcely be too great for the purposes of power and action. We next come to the thigh, the form and substance of which is most material to the race-horse; for although horses are said to go with their shoulders, the power to give the impetus in progressive motion comes from behind. In all animals endowed with, and requiring extreme rapidity of motion, the thigh is furnished with extraordinary powers and length; the hare, for example, whose thighs are let down to a great extent for their size, and the lower part of the hinder leg placed under them, as that of the racer should be, from a proper curve of the hock. The speed of the ostrich arises from the power of the muscles from the pelvis to the foot; and the thigh of the fighting cock is a point much considered by breeders of those birds. It is not necessary that a race-horse's thigh should be very large, but it should exhibit well-developed muscle. Descending lower in the limb, we arrive at the hock, a very complicated joint, but the form of which is most important in the race-horse. It should be large and lean, and the point of it projecting behind the body, which greatly increases the power of the lever in action, as will presently be most satisfactorily shown.

The medium height, about fifteen hands two inches, four inches to a hand, is the best for a race-horse. As the long beam breaks by its own weight, so large animals have rarely strength in proportion to their size. In fact, if there were any land animals larger than those we know, they would hardly be able to move at all. On the English Turf, however, the very large horses that have appeared at various periods of its existence, have, with a very few exceptions, not been found so good under high weights, as those of a medium height; and several instances are on record (Metora, Whalebone, Barker, Phantom, Lapdog, and others, for example) of the best horse of his year being very nearly the lowest.

* We lately heard it remarked, by a connoisseur as well as amateur of the horse, Colonel Nicholas Goldsborough of Maryland, that wherever the forehead came up sharp and pointed between the ears, experience had taught him to expect a true game spirit. The Morgan horse, coming from the Norman, through the Canadian, but getting his power of endurance from the blood-horse, is remarkable, as are the brave little Canadians, for breadth *between the eyes*. It indicates sense, courage and fidelity. As for the indispensableness of blood to all great achievements—who was surprised to find the first horse that ever trotted twenty miles within the hour, (Trustee lately at New York,) springing at once from the loins of a bred horse? (Trustee sire of Fashion.) In the Old Turf Register, vol. 2, page 163—165, will be found a list of sixty distinguished race-horses, only two of which measured above fifteen hands. In a general way, it may be laid down that the form is best which is composed most nearly of the essential properties of the rabbit, greyhound, and ostrich.—*Edits. P. L. & A.*

MESSAGE OF THE GOVERNOR OF SOUTH CAROLINA.

EXTRACT FROM AND NOTE ON.

"ALL who are familiar with the upper portions of the State know that few, if any of its productions, will bear the expense of transportation, by the ordinary means, to a market and leave any profits to the producer, except the article of cotton, which is not grown at all in the region bordering the mountains; and even that, at the present low prices, leaves but a small net income when the charges of transportation are deducted. All descriptions of grain may be transported to our markets from any of the Northern cities at a less expense than from the mountain region, where it is grown in abundance; and, with facilities of transportation, might and would be increased to almost any extent. Lime, which is found in abundance in York and Spartanburg Districts, of superior quality, is shut out even from the market in this place, on account of the difference in the expenses of transportation, by the Thomaston lime. For the same reason our great marts are closed against the iron produced in the interior, and they are supplied from Europe and the Northern States. The same remarks will apply to almost every article of production, the transportation of which is expensive on account of its weight or bulk; and I venture to predict, that unless greater facilities of transportation are supplied, the healthiest and most favored portion of the State will become tenantless. Heretofore they have found a market for their agricultural productions amongst their cotton-growing neighbors, but at the present low prices they [the cotton growers] will find it their interest to raise their own supplies."

And does not all this prove the wisdom of such legislation as shall incline the machinery and the consumers to go to the food and the materials, instead of sending the food and materials to Lowell and Manchester? just as the farmer and planter find it their interest to have the grist-mill and the blacksmith shop, and the shoemaker's shop, near at hand, even on the land, if they could have them there—and when at hand, is not the produce of the mill and the anvil, and the lapstone, much more freely consumed? are not men and beasts better fed, and horses and men oftener and better shod? and is there not vastly more demand for food and materials? What is it in the power of steam and of railroads, that they should have so vastly increased the wealth and population of the world, but their faculty of *saving time*, and thus adding to the productive capacity of existing laborers? just as if laborers had in reality been added in number equal to what manual labor could effect in the time that is saved, and by the power that is thus added? "Time is money;" and all the time that is unnecessarily lost, between the maturity of the crop of cotton or wool, or corn or wheat, and the conversion of that cotton or wool into cloth, and the consumption of that corn or wheat, is just so much money thrown away, as the man would throw away money who locks his surplus cash up in an old chest, or hides it in some secret drawer of his secretary, instead of putting it out at interest, or into active employment. The uplands of South Carolina ought to be employed in *sheep husbandry*, for one thing—wherein much value is condensed in little weight, and therefore more cheaply transported.

But the world is waking up to a conviction of the violence which is done not only to every local interest, but to the very laws of nature, by "man's inventions," when they force the loom and the anvil, against all obvious propriety and convenience, to work away off at a distance from the plough and the harrow, that furnish their materials and the food of those who labor at them; and hence it is that we see, in spite of political dogmas to the contrary, manufactories of cotton are *forcing* their way into Carolina, Georgia, and Mississippi; and hence it is that we are every day meeting with signs like the following, from the Mississippi Independent:

"We learn from the Carrolton (Miss.) Flag of the 13th inst. that a cotton factory is being established in Choctaw county, 11 miles south of Greensboro. It will be in full operation by the first of January next.

"We also understand that efforts are being made to form a company for the purpose of establishing a similar factory in Covington county. We hail these enterprises as 'signs of the times.'"

But here is **ANOTHER SIGN**:

Georgetown Cotton Factory.—We understand that this factory will go into operation again on and after Monday next, (this day.) We regret that it did not prosper in the hands of our enterprising fellow-citizen, Mr. Bomford. We hope that it is now placed beyond the possibility of failing. The beneficial effects, on its renewing operations, will soon be felt by our industrial population and merchants.—*Georgetown Advocate.*

Such is the course of things, and such it must ever be until the policy of protection shall be the fixed public sentiment of the country, and a fixed fact in its legislation. Col. Bomford buys an immense water-power for a song—establishes a factory that promises all that could be wished, and it fails—and all are sorry for him. His property is sold at a great sacrifice; and then should his successor in the undertaking be ruined, all will be sorry for him. Our policy in regard to protection and free trade is ever fluctuating; and manufacturing becomes a system of lottery, in which many draw blanks, while just enough to keep up the excitement draw an occasional high prize. So will it ever be until we have a system of our own, established on a solid foundation, that shall attract investment by something like certainty in the results, however moderate these results may be. Our Southern friends desire to have factories located among their plantations, to give value to their land and their labor; but we fear they will hope therefor in vain, so long as every man who makes the effort shall continue to be added to the list of those who have been ruined by the perpetual fluctuations consequent upon a dependence upon the variations of English policy.

ROBERTS' RESOLUTIONS.

On the power of the General Government to create Schools for instruction in the art of Agriculture, as well as in the art of War, by EDWARD P. ROBERTS, Editor of the American Farmer, and Chairman of "the Committee appointed to make a report on the various subjects connected with the Exhibition," held at Baltimore, in November, 1848, by the Maryland State Agricultural Society.

THE resolutions to which the report refers, were submitted by Mr. Earle, unanimously passed, and published in the last number of "THE PLOUGH, THE LOOM, AND THE ANVIL." A memorial having this object in view was presented last winter, by the Hon. Reverdy Johnson, with eloquent and forcible remarks in support of it, to the Senate of the United States, and referred to the *Committee on Agriculture*, who—*never held a single meeting during the session!!!!*

"Your committee are highly pleased at the resolution of the society, invoking the aid of the general government in the establishment of **INSTITUTIONS** 'to disseminate a knowledge of the science of cultivating the earth,' as also at its accompanying one, requiring the president to communicate the former to our representatives in Congress. Of the constitutionality of such appropriations, the writer of this report does not entertain the slightest doubt—their beneficial effects all will admit. The first grant in the constitution gives power to Congress to legislate for the '*general welfare*'—and certainly none will deny that *agriculture* lies at the very foundation of the welfare of the people of the Union; it is the source whence its wealth is created, its welfare promoted, and its prosperity insured: three-fourths of our population are engaged in agriculture; these by their productions sustain the other fourth, and produce the raw materials by which the industry of the country is carried on: and such being the case, it would be strange,

indeed, if they are not to come within the meaning of the term '*general welfare*;' for whose benefit the very first grant of power to Congress is given. The power here contended for, is an *expressly* granted one, and does not rest upon the more precarious basis of an implied or incidental one. If the agricultural interests have an identity with the '*general welfare*' of the country—and who will deny that they have—then do they come within the beneficent action of the grant of power, and as a just and inevitable deduction, Congress has the constitutional competency to appropriate money, or which is equivalent to it, to grant portions of the public lands, to establish and endow agricultural schools or colleges in the several states. Time after time Congress have made grants of the public domain to the *new* states for the establishment of institutions of learning, and the promotion of internal improvements. These things have been done *not* under *express*, but under the *implied* powers of the government. Congress has the right under the constitution to *regulate commerce* with foreign nations—so, also, to *establish a navy* and *raise armies*; but there is *not* a word in the way of *positive* grant about employing the navy to protect commerce; neither is there a word about establishing naval schools—and yet, our naval force is employed in every sea in the protection of commerce, and we have a naval school instituted to educate naval officers—and a military academy to educate our army officers. Whence comes the authority for the exercise of these powers? Not by any *express* constitutional grant; for in this light the constitution is silent—but from the power of implication. The presumption being, that the power to *create* carries with it, in the first case, that of protecting, and in the two latter, that of educating the officers who are to command the navy and army when created. Now, then, if an *inferential* power can be exerted so substantively in behalf of commerce, and for teaching men how best and most scientifically they may destroy their fellow-men, why, we would ask, is it, that the *express* grant of power in behalf of the '*general welfare*' should be considered a dead letter? We would further ask, if the people of the *new* states can have large appropriations made them for purposes connected with their '*welfare*,' how is it, that the '*old*' states are to be denied, when they ask for kindred appropriations?

"Your committee having had their attention called to this subject by the resolution alluded to, have felt it to be their duty to thus briefly give their views upon the constitutional branch of the question.

"EDWARD P. ROBERTS, Chairman of the Committee."

Applying Dung to Wheat.—The operations of life are on the surface of the earth, and the most plausible theory of the food of plants supposes that it is derived as much from the atmosphere as from the soil. We may also infer that new elements will be produced from the manure and the air, and which may be imbibed by plants. From these grounds, I have long been of opinion that the farm-yard dung, which is now laid on the bare fallows for wheat, might be more beneficially applied as a top-dressing in March on the growing plants. The dung being evenly and thinly spread over the land, it may lie for one or two months; and being then harrowed, it will form a top-dressing for the plants, of no common value, of the minute particles of dung and soil, and a bed for grass-seeds of a sort that they never receive. A matrix of different substances, in a finely reduced and comminuted state, resembles the "alluvium" of nature, in which plants so very much delight to grow.

J. D.

WHO SAYS—"SPEED THE PLOUGH?"

As we violate no custom, we hope we do not violate propriety, in placing the following letters in the body of our journal. We might fill a Number with extracts favorable to the object of our enterprise, and hopeful of our success, from a view of the manner in which that object has been so far pursued.

If these testimonies of support come from one quarter more than another, it is from the West and the South. From the South, the common sentiment is—"Send us your journal; it's just the thing we wanted:" and the same indication comes from Pennsylvania and Ohio. All that is now needed to place us on a platform that will stand is, that the patrons we have will average one additional one. Some, in isolated places, may not find that easy; while others could, almost for the asking, send four more at least. When we say that support comes chiefly from the South and West, we mean that it is there more equally spread over the country. But this makes the more conspicuous the goodwill of friends to our enterprise in Boston, New York, and Philadelphia, who encouraged us to embark in it. What more could any man say in its behalf than that praise vouchsafed by such an one as Samuel Lawrence, of Lowell, who volunteered the declaration that the best cure for the evils of the times would be, that every man, woman, and child, should read "The Plough, the Loom, and the Anvil?" while Mr. W. S. King, of Woodland Farm, Rhode Island, whom we have not the honor to know personally, says it will be with him "a labor of love" to go about extending its circulation! Adverting to these cases, as they occur, must not make the many friends who have elsewhere made up clubs of four and even many more imagine that we are for a moment unmindful of their great kindness. We trust ingratitude is not in our nature, whatever other bad ingredients may be. We might, if we had space and time to go over our files, pick out extracts like the following, from South Carolina, Virginia, Georgia, Maryland, Delaware, Alabama, Tennessee, Kentucky, Ohio, and New York, Florida, Pennsylvania, North Carolina, and Louisiana.

MY DEAR SIR:—Accompanying this I send \$20 on account of the following subscribers to your invaluable periodical.

My engagements have prevented me from doing as much for the good cause hitherto as I could have wished, but I trust the leisure of the winter will afford me abundant opportunity of proving the interest I feel in your undertaking.

Mr. Patterson, of Cross Creek, promises to secure a good list in his neighborhood; and I expect the cordial co-operation of Mr. George Wilson, of West Alexander.

I shall take an early opportunity of calling public attention to the "Plough, Loom, and Anvil," in the three papers of our town, and cannot but hope that it will obtain a large circulation in a county *so essentially tariff* as ours.

With my best wishes for the success of your patriotic labors,

I am, dear Sir, very truly yours, ROBERT R. REED.

P. S.—Monday morning. On coming to town this morning I added four more names to the list, which you will find below. All have paid except Mr. ———, who is absent from home just now. Yours, &c. R. R. R.

DEAR SIR:—Your friend Mr. Lawrence was not mistaken in supposing that I would feel a deep interest in your undertaking. It is well calculated to promote the best interests of our country, and I trust you will receive that encouragement which your patriotic attempt deserves. The time, I trust, has arrived when the people begin to see their true interests. At the same time that we introduce improved processes of agriculture, we should endeavor to create a market for our increased products. I hope the time is past when the laboring men of the country will permit their interests to be the sport of trading politicians. My sympathies are with the laboring classes, and my interests are purely agricultural. It is natural, therefore, that I should think this the great concern of the country. "The profit of the earth is for all: the king himself is served by the field."

I had the pleasure sometime ago to send, through our postmaster, Mr.

Hadden, five names, including my own, as subscribers to "The Plough," &c. After the presidential election is over, and the smoke of the battle is cleared away, I may do myself the honor of sending you a few more names.

With much respect, yours, &c.

N. EWING.

Buena Vista, Del., December 2, 1848.

DEAR SIR:—I have long been a reader of your productions, and have derived much valuable information from them.

Most cordially do I wish success to "The Plough, the Loom, and the Anvil." Set me down as a permanent subscriber; that is, during our joint lives. Send the work to Buena Vista, Del., till further orders. I wish my sons to study it.

Very truly your friend,

JNO. M. CLAYTON.

THE SHEEP IN ITS VARIOUS FORMS.

WISE men regard with suspicious eye the assertions of those who profess to accomplish a variety of dissimilar effects by a single cause. It is customary to be jealous of the pretensions of "Universal Restorative," "Heal All," or any other panacea warranted to cure diseases of all symptoms or all origins. And the proposal to adapt one breed of sheep to all circumstances of food, climate, and situation, making it answer all the purposes for which sheep are usually employed, seems justly to meet with similar distrust and suspicion.

From the varied habits of sheep, the widely different circumstances in which they are placed, and the opposite results which the several kinds are intended to produce, we are at once led to doubt the practicability and value of the scheme. We are induced still further to view the proposition as contrary to the order of Nature, when we consider the fact that there is scarcely any animal which appears under so many forms as the sheep. In Persia and other parts of the east it is found with a tail of twenty pounds weight; at the Cape of Good Hope the tail is worth as much as all the rest of the carcass; there and in other parts of Africa the sheep have clusters of horns, to the number of five or six; in Madagascar the same horns and tails are to be seen, the ears hanging down like those of a hound; about Aurengabad, between Agra and Bengal, they are found without any horns at all, but so strong that, being bridled and saddled, they will carry children of 10 or 12 years of age; the so-called sheep of Chili somewhat resemble camels, being hair-mouthed and hunch-backed, and they are used for carriage and field labor; those of China are small, with short tails, which, however, are a lump of fat; Tercen, in his voyage to Surat, mentions sheep with bent snouts and pendent ears, with wool more coarse and stiff than goat's hair; in Africa, to the north of the Cape of Good Hope, they never eat grass, only succulent plants and shrubs; in Thibet the sheep have large broad tails; in Natolia these tails are laid in carts on wheels; in Anspach, in Germany, a small sort exist that are shorn twice a year, and also lamb every spring and autumn; in Juliers and Cleves, also, they are said to lamb twice a year, and bring two or three at each time—five sheep have brought twenty-five lambs in a year; on the slave coast of Africa, the sheep have no wool, "but," says the old Dutch traveller, Bosman, "the want is supplied with hair, so that here the world seems inverted, for the sheep are hairy and the men are woolly"—this hair forms a sort of mane, like that of the lion, on the neck, and the same on the rump, with a bunch at the end of the tail; the Javanese sheep have tails weighing occasionally forty or fifty pounds, having a coat of red and white hair; four-horned sheep are numerous in several parts of Tartary, and a few have six horns, with wattles under the throat.—*Agricultural Gazette.*

WHY THE EAST CANNOT COMPETE WITH THE WEST.

BY COL. T. J. CARMICHAEL, SING-SING.

HAVING spent my early life in the State of Ohio, where the farmer suffered so much for want of a market, before the days of steamboats, canals, and railroads, and witnessed the immense change which these inventions and improvements have made in the wealth and prosperity of the west, by affording a ready market for the lighter and most valuable products of the soil, I confess I was surprised on taking up my residence on the North River, to find the farmers here trying to compete with the great West in the same products, instead of turning their attention to the more bulky and perishable articles, for which they have a good market, and against which they may defy all western competition.

Now let us try my position mathematically. And for that purpose give a farmer on the Hudson River one hundred acres of the best arable land, at a cost of one hundred dollars per acre, and a western farmer, say in Wisconsin, the same quantity at five dollars per acre—which is a full price for arable lands in that country under improvement. Now let each farm be located within the same distance from navigation, and allow the expenses of seeding and gathering of crops to be the same, and let the whole premises East and West be put into wheat.

First, the eastern farmer must manure at an expense of at least \$5 per acre, and if he is very fortunate he may raise 25 bushels per acre, or 2500 bushels in all. This is good for 500 barrels of flour. Take flour at \$5 per barrel, and he has \$2500. Now deduct 10 cents per barrel for transportation, \$50. Now deduct the interest of cost of one hundred acres, \$700, and manuring, \$500, and you have \$1300.

Now let us look at the operations of the western farmer, who, with the same labor, minus manuring, is sure of an average of thirty bushels per acre—say 3000—which is equal to 600 barrels of flour; deduct \$1 per barrel for freight, and at the same price in market he has \$2400; deduct interest on the cost of land, \$35, and he has \$2365; now deduct the proceeds of the eastern farm, \$1300, from that of the west, \$2365, and you have \$1365 balance in favor of the western farmer, more than the entire proceeds of the eastern farm. Our eastern farmer asks then, What shall we do? Our fathers used to make fortunes in raising grain? It is answered that your fathers lived in another age of the world, and were governed by circumstances; you see the progress of the means of transportation—you see the enormous growth of the West—you feel the competition of that quarter in the lighter articles—you also see the high prices of bulky and perishable products in your market, without taking the advantage of such a state of things. By perishable products, I mean potatoes, turnips, beets, carrots, cabbage, fruit, and all other vegetables—together with fresh beef, mutton, pork, &c.

Now let us cultivate a farm on the North River, with some of these articles, all of which are about equally profitable. Suppose the same farmer should plant 50 acres in potatoes, and the same number in turnips, after manuring as for wheat. The potatoes should produce 200 bushels per acre, 10,000 bushels. These at three bushels to the barrel, are equal to 3333 barrels, worth at least as many dollars in market, clear of freight. Now your fifty acres of turnips should yield 400 bushels per acre, 20,000 bushels, or 6666 barrels, worth half a dollar per barrel clear of freight, \$3333; to which add the crop of potatoes, \$3333, and you have \$6666. From this sum deduct manuring and interest, \$1200, and the balance is \$5466 from one hundred acres.

Now instead of marketing the turnips, (which are a bulky article,) let us adopt the European practice of purchasing stock in the interior of the country from the breeders, and fatten it for the market. It has been demonstrated that 60 bushels of turnips, and 600 weight of hay properly fed, will fatten ten sheep, or one cow, in the best manner for the shambles, in the space of two months. Sheep and cattle can be purchased in the interior of the country, in low condition, for half their market value when fattened. This process here, as well as abroad, will yield the farmer a liberal increase.

On my late visit to Europe, I found that they adapted their business and products to their location. In districts at a distance from market, they raise grain and breed stock, while those more convenient turn their attention to growing vegetables and fattening stock; and it is to this practice of making two professions, viz. fattening and breeding, that I attribute most of their success. In farming, like every other business, a man should never have "too many irons in the fire at once," some of them are liable to get burned. He who turns his attention either to one branch or the other, is the most likely to come out successful in the end. Who employs a physician to perform the duties of a surgeon, or a carpenter to build a brick or stone wall? And with deference I submit to intelligent farmers, whether there is not as much difference in the modes and rules of *breeding stock* and fattening it, as in that of *raising grain* and bulbous roots?

It seems almost incredible to an American, that in many parts of Great Britain and France the farmers pay \$20 per acre rent per annum, by the hundred acres, and yet they drive a thriving business, by adapting their products to their location, and yet it seldom happens that similar articles are higher there than in the New York markets.

I am inclined to think there is a mistaken opinion very general among our farmers, that they should produce at least as much of certain crops as they consume; as well may it be held, that every farmer should doctor his family, plead his law, or preach his gospel,—when he can purchase cheaper than produce, or realize a greater income by selling one thing and buying another, why not do so?

Men are the sport of circumstances, when
Circumstances are the sport of men.

That farmer must play a losing game who will not adapt his business to circumstances and location.—*Am. Quart. Jour. of Ag. & Science.*

Every reader, on perusal of the above, can make for himself the necessary allowance for difference of "circumstances," and thus see how far the observations of the writer (which, for the soundness of his general principle, is not to be questioned) apply in his own locality. Of one thing nothing can be seen to be more clear than the fact, that those in the old worn-out parts of the Southern States, at any considerable distance from and cost of transportation to market, and who yet persist in making grain crops and tobacco crops, in competition with the western producer of these commodities, is in the way, if he would but see it, of a galloping consumption of all that is left him of his paternal estate. There is nothing left him but to change his course and objects of husbandry to things that won't bear being brought from the West, and, for consumption of them, he must draw the loom and the anvil *near to the plough and the harrow*. He must strive to compel the government to the enactment of laws that will force the manufacturer to place his establishments in our own country; but how can he do that? Where is he to get the operatives, when, by admitting foreign manufactures, you force him to work in competition with the starving operatives in English mills? If you won't give some assurance of something like permanent investment and reasonable returns to men who would embark their capital in manufactures, what is the obvious alternative? Why, clearly that the men who would be working in cotton mills and woollen mills, and coal mines and iron mines, consuming your bulky and perishable things that can't be brought from the West, will go themselves to the West, and rely for a living at least on the plough and the harrow; for, after all, men must have *bread and meat* for themselves, their

wives, and their children; and who would desire to see them reduced in our country to the pay of the laborer in the factories of Leeds and Manchester? What is that? Read and see.

RATE OF WAGES IN GREAT BRITAIN.

We copy the following article from the Lowell Courier. The writer, Mr. AIKEN, is agent of the Lawrence Mills in Lowell.

DURING the autumn of 1847 I visited Europe, and, while in Great Britain, spent several weeks in the manufacturing districts. I was admitted with entire freedom to the linen factories at Belfast, Ireland; to the machine shops and cotton factories at Greenock and Glasgow, in Scotland; to a large woollen factory at Leeds; to several of the machine shops and cotton mills at Manchester; to a lace factory at Derby; and to the shops at Sheffield and Birmingham. All the processes in the several manufactories were shown to me, and all my inquiries were answered without reserve and to my entire satisfaction. The rate of wages paid to the operatives and the cost of production were of course points which I could not overlook. I was uniformly attended by the proprietor or manager of the factory, and the information received was immediately noted on my memorandum book, from which I take the following particulars regarding wages:

The operative in all cases boards himself out of the wages paid.

In the linen mill at Belfast, wages from 11d. to 13d. per day; average 6s. a week; equal to \$1 44.

In the cotton mills which I visited at Greenock and Glasgow, in Scotland, wages ranged from 4s. to 8s. 6d. sterling a week; average not over 7s. 6d.; equal to \$1 80.

In the large woollen mill at Leeds, wages ranged from 6s. to 10s. sterling a week; average not over 9s.; equal to \$2 16.

In the two best cotton factories I visited at Manchester, one of them spinning fine lace-thread from No. 200 to No. 400, and the other spinning No. 40 mule-twist, the average wages paid to men, women, and children, as given me by the proprietors, was 12s. a week; equal to \$2 88. At the same time the proprietors informed me that their rate of wages was considerably above the general rate; and, in accordance with this statement, I found in these two mills much the best clothed and best looking sets of operatives I saw in any factories in Great Britain.

As another test of the cost of labor, I ascertained from the proprietors themselves, who, in some instances, submitted to my inspection their private weekly minutes of cost, that No. 40 mule-twist was produced and packed for market at a cost of 2d. per pound on labor. And this embraced mechanics and all other labor employed about the establishments.

Skilled labor is also much cheaper in Manchester than in Lowell. In one mill, much larger than the new mill of the Merrimac Company, I was informed that the head overlooker, having a general superintendence of the whole mill, received £3 a week, equal to 240 a day; and the overseers of particular rooms from 27s. to 30s. a week, equal to \$1 08 and \$1 20 per day.

My general conclusion was that labor in the cotton manufactories in Manchester was at least thirty-three per cent., and in the woollen at Leeds at least fifty per cent. cheaper than similar labor, at the same time, at Lowell.

Very respectfully,

JOHN AIKEN.

BONE-DUST.

NEARLY all recent experiments seem to corroborate former statements relative to the very great utility of bone-dust when properly applied, and many farmers are availing themselves of this valuable article to increase the fertility of their soils. But, if its properties and effects were more generally understood, none but judicious applications would be made, and it would, doubtless, be in much greater demand, and, as a consequence, all bones would be preserved in a fresh state, and mills would be erected purposely to prepare them, and an article decidedly superior to that at present employed would be obtainable.

Some interesting facts and inquiries, in regard to its use, have been presented to us of late, that we deem well worthy of publication. They were received from an intelligent gentleman residing in Bucks county, Pa., and are the results of his own experiments, which he is prepared to substantiate. He states that, in 1845, he applied ten bushels of bone-dust (cost \$4) on three-quarters of an acre of clover sod, and obtained eight bushels of wheat, extra, worth \$10. His land was ploughed the first of September; after which the dust was applied broad-cast, and then cross-ploughed quite shallow, sowing the wheat September 25th. The subsequent season he manured with barn-yard manure the rest of the field for corn; but says the corn and oats have been decidedly superior where the bone-dust was applied, and now produces a much larger quantity of clover. In 1846, he applied 110 bushels (cost \$44) on seven and a-half acres of oat-stubble without other manure, and gathered 113½ bushels of wheat, and thinks, had the season been favorable, the yield would have been even 140 or 150 bushels. In 1847, he applied 100 bushels, with six loads of yard manure, on seven acres of clover sod, and obtained 206 bushels of wheat. He says, by leaving some pieces without bone-dust, he has satisfied himself that it is more efficacious than a covering of yard manure.

In the fall of 1847, he mixed two bushels of bone-dust with ten of fine soil, keeping it moist during the winter, and, in the following spring, placed one handful under each hill of corn, thus applying not over two bushels to the acre, and obtained ten bushels the acre more corn than on that portion to which ashes and plaster were applied. The soil was a loamy one, and he remarks that its effects are more visible on loam or clay than on sand, and that the dust used was obtained at the button manufactories.

He also observes that it is less perceptible on land that has been recently limed, and states that he applied bone-dust and *caustic* lime together on one portion of a field, and on another pure bone-dust, and the result was that double the quantity of wheat was produced on that portion to which the dust was applied alone. He further states that the experiments of his neighbors corroborate those of his own, and then, in conclusion, wishes our opinion in regard to the cause of the failure. A correct explanation of this phenomenon would be full of interest as well as value; but, owing to our limited knowledge of the action of the phosphates, it is exceedingly difficult to arrive at an accurate conclusion: nevertheless, we submit the following remarks as the result of our brief reflections. And, in order to be clearly understood, we shall be obliged to rehearse some matters of fact that may not be generally known. Bone-dust prepared from fresh bones that have not been exposed to the action of the atmosphere, or any other modifying agencies, contain about one-third of their weight of animal, the remaining two-thirds of earthy matter, five-sixths of which is phosphate of

lime, the rest principally carbonate of lime. This is the composition of the bone-dust employed in England with such beneficial results. Now, some of the most eminent chemists differ in their views in regard to the cause of the increased luxuriance in the growth of vegetation, produced by the application of this article—some attributing it exclusively to the phosphates, and others to both the phosphates and animal matter.

The latter opinion we consider decidedly preferable, though some experiments would lead to an adoption of the former. Embracing this view, then, we can easily conceive that there may be cases where the animal matter may be more efficacious than the phosphoric acid, and also the reverse. For instance, in those soils that are abundantly supplied with the phosphates, the increased fertility resulting from the use of bone-dust will undoubtedly be occasioned by the animal matter. In an example of this kind, the presence of lime in the soil will be of value, for it will hasten the decomposition of the organic portion and render it more immediately available. Hence the reason that some assert that bone-dust is of more utility on calcareous soils than on others.

But the dust obtained from the button manufactories undoubtedly contains a less per centage of animal matter, it being eliminated during the bleaching process; therefore the efficacy of the article used in Bucks county may principally be attributed to the action of the phosphates. Now, what changes does the phosphate of lime undergo after being incorporated with the soil before it is in an available form?

The answer to this we will preface with a few remarks. It is well known that the effects of bone-dust are often very lasting, being perceptible for several years after its application. This, we imagine, results from the strong affinity existing between the acid and the lime, and the insolubility of the compound in water, which would, of course, be inert unless dissolved. It is for this reason that a patent was granted to J. B. Lawes, Esq., in England, in 1842, for a method of preparing it. It was to decompose the ground bones by the addition of as much sulphuric acid as would liberate enough of the phosphoric to dissolve the phosphate of lime. The free phosphoric acid is thereby ready to combine with the various alkaline earths contained in the soil. In this state, when applied, its operation would be immediate and prompt, consequently not so lasting as when employed in its original condition. Of course, cases occur when this mode of applying it would be advisable. We conceive that a similar change takes place with the phosphate of lime in the soil to that described when saturated with sulphuric acid; that is, there must be some acid present to assist in dissolving and partially decomposing it, when it will be in a condition suitable for vegetable aliment.

That such acids exist in soils, there can be no doubt, and to them we would attribute the decomposition of bone-dust, that would proceed rapidly when they were in liberal quantities, and slowly when not. On those soils where it continues to operate for a long series of years, doubtless the quantity of acids is *very* small, so that the chemical changes that are necessary to render the phosphate of lime available proceed very slowly; and when its effects soon cease, the opposite of this exists. Admitting these views to be correct, we can easily account for the failure in question, where caustic lime was applied in connection with bone-dust; for caustic lime, which is a strong base, would at once unite with all the acids in the soil, thus leaving none to dissolve and decompose the phosphate of lime, which would consequently remain inactive for a long time. But, in addition to this, the caustic lime would also liberate the ammonia formed during the decomposition of the vegetable matter in the soil, and thus prove injurious in two ways. The

same result might be anticipated, though to a less extent, on lands that had been recently limed, for it requires a long period for caustic lime to absorb from the atmosphere its equivalent of carbonic acid.

This view of the subject would lead us to believe that phosphate of lime would be comparatively inactive on soils that contain potash and soda in large quantities, for these alkalies would also neutralize the acid. Now, it is known that soils derived from the disintegration of the metamorphic and plutonic rocks are highly charged with these alkalies, the felspar yielding potash, and the albite soda—both these minerals forming component parts of these two classes of rocks. The soils in Philadelphia county are mostly derived from these rocks; hence we can anticipate the effects of phosphate of lime when applied to them. Experiments have been made with it in this vicinity, and we were recently informed by a gentleman who has made applications of it, and has satisfied himself that it is of no utility on his land. Doubtless, if it were mixed with earth and saturated with diluted sulphuric acid, it would be equally as visible here as elsewhere. Bone-dust, however, may be useful on such lands if the alkalies have been greatly exhausted by long cultivation; and indeed it may be known to produce good effects when this change has not taken place; but, in such instances, we would attribute it principally to the animal matter, which would operate on such soils with as much facility as most others.

Then, to sum up our remarks, we are induced to believe that, when the good effects of the use of bone-dust are owing to the animal matter, it is most effectual on soils that contain lime; but when to the phosphate of lime, on those soils that have *not* been limed and are *not* abundant in alkalies. And, as the bone-dust obtained at the button manufactories contains less animal matter than that prepared from fresh bones, we think it can be used to the best advantage on soils of the latter class, unless it be acted upon by sulphuric acid, as before described, when it will act with nearly equal promptness on both. These remarks, as premature as they may be, are offered to the public with the hope that they may awaken a spirit of inquiry in reference to this article, which we believe, if judiciously applied, will be of vast utility.

P.

Laboratory of Mount Airy Agricultural Institute, Nov. 14th, 1848.

THE LAW AS IT STANDS IN MARYLAND, ON THE SUBJECT OF FENCING.

THE Editor of this journal, in attendance at the meeting of the Agricultural Convention in his native State of Maryland, in October last, honored with an express invitation to take a seat, and participate in the deliberations of that body, and seeing no one disposed to present to its consideration several subjects which seemed to him to demand investigation and exposition, thought he might feel so far at home as to venture upon submitting some of them for reference to committees. Several of them were referred accordingly, and among the rest, one on the subject of the *fence laws* of the State—one on the necessity of further legislation to promote the extension of sheep husbandry, especially by removing the great obstacle to the prosecution of that industry which exists in the ever-recurring *depredations by dogs*; and another suggestion was, that the inspection laws of the State, under which the planter's tobacco, and the farmer's flour, and the dairyman's butter, are made liable to the expense of inspection, and in some cases to forfeiture, not by any arrangement between the seller and the buyer, but by public authority, and at heavy expense to the producer.

We did not undertake to vouch for any state of facts, or to aver the necessity for, much less to prescribe any remedial legislation, but to *suggest inquiry!* Well, in the two first cases, relating to *fences* and to *sheep*, it is very gratifying to find reports, in the records of the proceedings, as published in the American Farmer, and we cheerfully leave it to the reader to say whether the subjects were entirely supererogatory and barren, or whether the results have not been useful and suggestive of measures needful for the security of the farmer, or at least satisfactory and valuable as matters of information.

We have indulged in these preliminary remarks, because there is an expression in the report of the committee that might bear the construction of implying that the law was already clear and well known, and the inquiry of course superfluous. "Of course it at once sets at rest the *idea*, that it is the duty of the land-owner 'to fence out' stock, and imposes upon the stock-owner the duty of fencing it in," says this report.

Truly we are well pleased, as we believe many of our readers will be, to learn that *such is the law*, for we will venture to say, that until it was here proclaimed by a gentleman himself well learned in the law, there was not one farmer in twenty aware of the fact, that, if he chooses not to go to the enormous expense of "fencing out" his neighbor's stock; if, on the contrary, he has a field of luxuriant wheat growing on land adjoining his neighbor's pasture, and he chooses, as every man naturally would, to avoid the expense of fencing it in, and his neighbor's cattle come from his pasture and destroy it, that he can recover the full value of his wheat. Yet such it seems *is* the law; but not without *some* qualification, for it appears, on examination of the law as it stands, that the "idea" holds good to the extent of no less than *six counties*, which have been made exceptions to the common law, to wit, *Allegany, Washington, Baltimore, Cecil, Kent and Caroline*. The good people of these counties, as here reported, choose to be compelled to "fence out their neighbor's stock."

If we can find room we shall follow these remarks, with a copy of this, as we must consider it, very opportune and useful report; for the suggestion of which we shall persist in claiming some little credit, just as may the humble footpad, or even the cawing crow, on whose notice of its whereabouts, huntsmen at a loss sometimes retrieve their game at a critical period of the chase. In the mean time be it remembered, that unless in the counties aforesaid, where the obligation to "fence out their neighbor's stock" has been self-willed and self-imposed by the inhabitants, any farmer or planter who chooses to restrict his own stock within limits, however narrow, is under no lawful necessity to provide any other fencing or enclosure. He may sow his wheat and plant his corn or tobacco, in any one of his own fields, though entirely unenclosed, and be as sure of indemnity for injury, and as much entitled to it in law and in morals, according to this report, as he would be against a neighbor who should rob his corn-house because it happened to have no lock on it. How is it in other States?

What a saving this is to a man who has occasion for but little stock; only his work-horses, cows enough for milk for his family, and oxen for his cart! How much more economical in some cases to keep them up and soil them, or to enclose a field expressly for them, than to be making *miles of worm-fencing*, which consume so much time and involve enormous expense in "righting up" and repairing, and (unless of chestnut rails) to be every ten years renewed. All this, now it seems, is not a necessity imposed by law, (except in the counties aforesaid,) but is one voluntarily assumed! Yet what would the farmer think if a law were made, that imposed on him, for the maintenance of churches or school-houses, a tax equal to that which he

thus voluntarily incurs, in "fencing out" his neighbor's stock? We happen to know that one gentleman in Maryland has been put to the expense of \$15,000 for his post and rail fence, and that he had put up many miles of worm-fence besides, of eleven heavy chestnut rails to the panels, and we believe the common price of such rails is \$50 to the thousand, delivered along the tributaries of the Chesapeake! Thus at that price a fence of 1000 panels would cost for the material, supposing 10 rails for each pannel, the snug little sum of \$500, the interest of which is \$30 a year for ever, to say nothing of the wear and tear and general loss of principal and interest! and all this, it would seem, is a self-imposed expense, uncalled for by the law, except in seven counties, and except to the extent that the farmer may judge it indispensable to "fence in his own stock," from his own crops. Let him calculate how much better it would be to lay out the labor and money now expended in out-line and in cross-fencing, in the purchase or making manure to enrich lots, to provide green food for soiling, or even to buy provender.

It may at least beguile a lonely hour some snowy day at his fireside, to follow the subject through its details as it affects his pocket; having flushed the game, we leave our readers to pursue it, joining cordially in the thanks we claim for the committee, for what we venture to call the *revelations* contained in their report, of things new to most of those who are, like ourselves, not learned in the law. But now that the laws will be tinkered but once in two years, instead of annually for three months, at the expense of the farmer and the planter, may we not hope that common people may have some chance to know what they are, before they are changed. Heretofore they have been as easily modified, complicated, and confused, as the contents of a kaleidoscope.

VERMONT AND MARYLAND HUSBANDRY COMPARED.*

IN the preceding number we expressed the apprehension that we might not have time for this comparison; nor can we make it now, except in some strong points of view, which, we are aware, must leave it very incomplete. Enough, however, may be suggested to set the reader to *thinking*; and that, let us tell him, is half the battle gained in a contest between error and truth. In fact, the great difficulty, according to our observation, in the way of meliorating the condition and character of the American farmer, is *to get him to think!* If you could, would you see him, for example, go even three times, instead of three thousand times, through his own gate, that either strikes the ground and *drags* before it reaches half-way to the post, or else falls with such force against it that you may hear the dreadful concussion a mile off? Would you see him losing \$50 worth of time in a year in pulling down and putting up bars, to say nothing of occasional destruction of his crop when they are *not put up?* Would you see him stooping to the pommel of his saddle for seven years to avoid the limb of a tree, in his daily ride, that one stroke of a hatchet would remove? No—you *cannot get them to think!!* But enough of that. The two States that we are going to compare, in some points of view differ somewhat in size, but not so much as in some other things—Maryland having 11,000 square miles, or 7,000,000 acres, while Vermont has but 8,000, according to Danby, or 5,120,000 acres. Now see the difference in their agricultural pursuits and economy, and

* Virginia and South Carolina might be embraced in the comparison, and the parallel would run on all-fours without much halting.

446 VERMONT AND MARYLAND HUSBANDRY COMPARED.

the results to which they have conducted these two old sisters of the republic.

In Vermont winter lasts, and cattle and sheep are fed, five months in the year—sheep at a cost per head per annum, as we have often been told, of what would actually fetch from \$1 to \$1 15, while in Maryland they are rarely if ever fed, except when the snow covers the ground, which does not average a week in the year—when they have, *scattered on the snow*, some corn-blades, or perhaps sheaf oats; and, with all these disadvantages, the Vermonter has the sagacity to go strong upon cattle, and sheep, and wool, and hay, and potatoes, and milk, and butter, and cheese, &c.; content to let the Marylander beat him in *horses*, (the most precarious and expensive investment that can be made in animal flesh or power,) and in wheat, and corn, rye, and tobacco, all of which the earth yields by bushels and pounds, instead of tons; and which, at last, are all sold away off the farm, yielding no return to the land that produced them. Let us follow the comparison more exactly on some points indicative of the sources that go to produce increase of population, and political power, and appreciation of land, and the contrary.

	Horses.	Cattle.	Sheep.	Wool. lbs.	Potatoes. bushels.	Hay. tons.	Value of products.	Fulling- mills.	Woollen factories.
Vermont, . .	62,402	384,341	1,681,819	3,699,235	8,869,751	836,739	2,008,737	239	95
Maryland, .	92,220	225,714	257,922	488,201	1,036,433	106,687	457,466	39	29

Now, what is the lesson in the political economy of the plough, that this view of these States teaches? Does it not go to show that wise States, when not made subservient to the colonial policy of other countries by the subservient policy of their own, will keep the *loom and the anvil near to the plough*? where nature, if left alone, would place them, as naturally as she places the country mill near to the corn-house. And what, reader, is the *effect* of a course of husbandry that does keep them together, and enables the farmer to consume on the land the products of the land? Why, the effect is just this; that, as here we see, Vermont, wearing her garments of snow five months in the year, in 1790 begins on a basis population of only 85,416, and runs it up in 50 years to 291,948; while Maryland, the favored of Providence, starting at the same time with a population of 319,128, has gone in the same period up to only 470,000;—the former doubling her man capital more than three times over, the latter not *half doubling hers once!*

Now, will agricultural societies look into questions like these, and compel their legislators to do their duty, instead of flying humbugs to amuse, or setting clap-traps to catch ignorant voters? Will the people choose well-informed, intelligent, thrifty, and industrious farmers, of good, plain, sound sense, to make their laws; or will they be ever cajoled by conceited, shallow-pated, flippant doctors and attorneys, who covet the high office of legislator, and then desecrate it by making it a ladder to climb into Congress, as another stepping-stone to some office to be found in the executive chamber? Would it not be well that Maryland, and every other State, should have occasionally full surveys and returns made up of all her agricultural and other statistics, and shape their legislation accordingly? What is the use of the free government, of which we boast so much, if the faculties which God Almighty has given us are not exercised for the improvement of our natural resources, our industrial employments, and our political and social condition? In Maryland and Virginia it has been a sort of monomania to decry and denounce combinations of men and capital to establish manufactories. The senseless cry of monopoly has been raised against them, as if those

(who, not having individually the means, would combine to erect them) were mad dogs. It would be better, wiser policy, to go into the other extreme, and encourage such combinations by exempting the property from taxation. In Vermont their manufactories have given rise to ten towns within her 8,000 square miles, with populations ranging from 2 to 10,000. In Maryland there are but four such in the compass of 11,000 square miles. In Vermont the farmer sells potatoes and mutton, in Maryland wheat and tobacco! wheat averaging throughout the State not more than seven or eight bushels! Let us hope that we may grow wiser, as this is said to be the age of *progress*!

DYERS' MADDER IN THE UNITED STATES.

We take the following from one of our exchange papers :

"We notice with much interest that the cultivation of madder is engaging considerable attention in this country, and particularly in Ohio, where, for several years, the experiment has been attended with very satisfactory results.

"The last report of the Patent Office contains a statement of Mr. Joseph Swift, near Birmingham, Ohio, in relation to his success in the culture of the article, which would seem to settle the question of its practicability and profit. Mr. S. is probably the most extensive cultivator in the Union.

"The yield per acre, Mr. Swift believes, can be reasonably estimated at 3000 lbs., the clear profit on which would be about \$300, a generous return certainly upon the capital and labor invested. As regards quality, this madder was pronounced superior to most of the madder imported, and no difficulty was found in selling it wherever it became known.

"The importations of madder within the last two and a half years amount to about 17,000,000 lbs., at a cost of \$1,800,000, chiefly from France, Holland, Belgium, and England. As the culture of the article is found to be both easy and profitable on our own soil, there is no good reason why we should not save ourselves the expense of its importation, and in regard to this article be independent of foreign countries.

"Although a portion of our foreign supply of madder is from England, that country is itself a large importer from Turkey and France, not having succeeded well in growing it at home. She consumes annually about 60,000 to 70,000 cwt. of the foreign article. Our agriculturists, besides supplying the constantly increasing demand of our own dyers for this article, may find a good market in England also."

Such are the effects of bringing the loom to the neighborhood of the plough. An acre of land can be made to yield \$300 worth of madder; whereas the same quantity of land applied to the production of wheat would yield scarcely \$20. With every step in the process of bringing the loom and the anvil to the side of the plough, the farmer is benefited, because with each he finds new and more profitable modes of employing his labor and his land. Wherever the three are found united, the owners of ploughs and harrows grow rich, but wherever the plough alone is found, its owner is poor.

Might not the Committee on Agriculture, in the Senate of the United States, which held not one meeting during the session, have found, even in this subject, something worthy of investigation on which they might at least have founded a report? No one questions the fact, that with proper encouragement we might soon supply ourselves with all the madder now imported for the use of our manufacturers, and make it an article of profitable export. No States or counties are better adapted to its growth than Delaware, Pennsylvania, and Ohio, all of which were represented in the Committee on Agriculture, and the chairman of which is from Pennsylvania. Yet, as we have before said, so much were they thinking of other things and other countries, that they held not one meeting during their protracted incubation of nine months—and the probability is that they will hear not one word of reproach for such dereliction of duty, either from an Agricultural Society or from any paper in the Union, except this.

ON SHEEP-HUSBANDRY IN MARYLAND AND VIRGINIA.

AT the late meeting of the Maryland State Agricultural Society, the following report was presented by an experienced and enlightened farmer of Talbot county.

From it, the reader may judge whether the subject is not worthy to beget the solicitude and united action of every landholder in the State. Will it do so—or will the matter be allowed to stop here?—*Nous verrons*. Unfortunately there are too many, even landholders, seekers after popularity; who fear to propose or advocate measures which may restrain the sovereigns in the enjoyment of the largest liberty: even that of keeping dogs, (which, like certain people's slaves, are starved if not trained,) not to catch the things which they ought to catch, but to catch the things which they ought not to catch—and particularly *other people's sheep*! In the neighborhood of the Long Old Fields, in Prince George's, you might as well hang a purse up on the highway, and expect to come back and find it, as to trust a valuable fat sheep beyond the range of musket-shot, and a sharp look-out at that. It is characteristic, perhaps yet more of the sheep-stealing dog than of the other rogue, that he has the sagacity to leave his master's flocks unmolested, while he travels off miles from home in pursuit of other people's. And what, far from mitigating, rather aggravates the grievance is, that with respect both to the thief and his dog, it's ten to one but they desecrate names indicative of all that is eminent and noble among men and beasts. When you do catch them, which rarely happens, it's ten to one but the owner answers to the name of Cæsar or Pompey, Antony or Brutus, while the dog implies the opposite of what he is: so true is it that

“————— a *cur* may bear
The name of Tiger, Lion, or whate'er
Denotes the noblest or the fairest beast.”

Crowded as we are, our limits do not permit us to go into an examination of the question, how, and with what great profit, the number of sheep bred in Maryland and Virginia might easily be doubled; and how every county in the State should have its little woollen factory, to supply itself with all its clothing. The pursuit of the subject at the first glance of it, will lead to a comparison of the husbandry of now snow-clad Vermont, with that of Maryland—the farmer in the former going in for objects that either involve little labor, comparatively, in the work of production and transportation; or where much labor is applied, the product is consumed on the ground, and the refuse returned to the ground for the enrichment of the land and its owner; while we should be led to show how Maryland persists in a contrary course, and hence diminution of population, enlargement of farms, and lessening of all other capital proceed steadily together. This is the mere outline of the picture that sketches itself at the first glance at the statistics of the two States; Maryland being one-third the larger of the two. But it would take time that we have not at command to fill it up, and so we give that which will better repay the attention of the reader:

Col. N. Goldsborough, of Talbot, from the Committee on Sheep, also appointed at the first meeting of the Society, presented the following report, which was read and adopted:

REPORT ON SHEEP.

The committee appointed at the first meeting of the Maryland State Agricultural Society, by virtue of a resolution declaring that the “Farmers of Maryland suffer great loss by being debarred from the profits of sheep-husbandry—recommending that the subject be properly considered, and especially whether some and what legislative measures could be taken to encourage that branch of agricultural industry by some stringent provisions as to sheep-killing dogs, or otherwise,”—respectfully report:—that

they have bestowed much reflection on the subject, and are deeply aware of its great importance.

Various laws have already been passed, touching sheep-killing dogs; but the question recurs, whether that great interest may not be further protected? The impression strongly pervades the agricultural community, that the vast number of useless and worthless dogs which prowl about the country is the fruitful source of the great losses sustained, and of the injuries inflicted on their flocks. There seems to be an absolute passion existing in all ranks of life, to keep thrice as many dogs as are required for any useful purpose; and it is but right, that those who delight in being surrounded by such unnecessary appendages, should pay for the gratification—luxuries having been always held to be proper subjects for taxation. This, however, is an exceedingly delicate subject to approach, and the course proposed may be regarded by some as an infringement on the privileges of the citizen. Can it be possible that, in a country where equal rights are guaranteed to all, that a large and highly respectable class of citizens shall be subjected to heavy losses merely for the gratification of a hitherto unrestrained propensity, not essential either to personal comfort or productive of any real benefit—which may be avoided, or at least mitigated and lessened, by the exercise of a spirit of liberal concession, and the joint action of all honest and thinking men.

It may be remarked, that the greatest sufferers are those who reside in the vicinity of towns and villages, whence the half-famished prowlers sally forth at night and commit irreparable injuries on our flocks. A farmer may give notice to his neighbor that he has seen very equivocal conduct in his dog, plainly indicating that if not already, he will shortly become a sheep-killer—the intimation is received with incredulity, and consequently without the slightest precaution in the premises. Shortly thereafter, the dog is caught, “*flagrante delicto*,” and what remedy has the sufferer whose splendid flock of sheep has been mutilated or destroyed? Why, he informs his neighbor of the fact, and if he will not destroy his pet, the law at present provides that the injured man may go himself with an officer, and have the dog destroyed. This is his only remedy—this his sole redress. But who pays for his losses?—echo answers, who?

Your committee, therefore, present for the consideration of the society, the following suggestions, under the firm belief that they will prove to be remedial for the evils complained of, or at any rate greatly contribute to their mitigation.

Further legislation must be invoked on this subject, so momentous to the farming interest, and to effect which, petitions should be got up and numerous signed for future presentation to the General Assembly of the State. Now, that the prejudices and predilections of our citizens may not be too suddenly and violently assailed by causing a tax to be laid on *all dogs*—let a law be passed, securing to every free white male citizen, and none other, the privilege of keeping one dog, exempt from taxation. For a second, kept by the same person, or in *the same family*, a tax of \$—; for every additional dog let the tax be doubled or trebled, so that if it does not amount to actual prohibition, a complete check will be given to the unreasonable multiplication of the number of dogs. It will be perceived that the tax thus laid will create a fund, which should be placed under the control and supervision of the Commissioners of the Tax or Levy Courts of the counties, as the case may be—which said fund shall be applied to remuneration of persons who have sustained injuries or losses by the depredation of dogs. Appraisers should be appointed in each election district, by the proper tribunals, to place the *true value* on the sheep destroyed or mutilated—and to give a certificate thereof. It should be the duty of appraisers not to place an equal valuation on good and bad sheep alike—but truly according to value—for it may so happen, that one farmer may lose a valuable buck for which he has paid a large figure, for the improvement of his flock; while his neighbor may have had one destroyed, which should have been subjected to the *knife* years before. This, however, is not the proper time to carry out the minute details which should be contained in a bill—suggestions as to what may be done, being the chief aim of the committee.

But there is another enemy of the ovine race whose case is to be considered and provided for, viz.: that stealthy depredator, the fox. No means are known to your committee either for preventing the increase, or causing the destruction of these wily animals, but by the employment of fox-hounds—they are too cunning to be *trapped*, and can be reduced only by successful pursuit. May not exception be made to the taxing of hounds—but in lieu thereof, the law should contain express provisions, that all fox-hounds should be kept in kennels, in order to effectually preclude their depredations—and it will be found that the owners of them will be thereby subjected to a sufficient tax, without any other imposition.

As a further argument for reducing the number of dogs, it may be safely affirmed that the frightful disease, canine madness, will be diminished in the same ratio—hydrophobia invariably originating with the dog. It may be asserted without fear of contradiction,

that many of the large number of dogs now permitted to roam at large, are neither half fed nor cared for; and what are the consequences? It has been proclaimed by that distinguished man, the late Judge Peters—that “not only *sheep-killing*, but *diseases* and *madness*, in dogs, are frequent effects, either immediate or consequent, of keen and long continued hunger; which stimulates to gorging voraciously on whatever esculent they find; and not seldom on putrid and unwholesome food. The rabid and feverish thirst for blood, is a species of mania; and it is sometimes the forerunner of complete canine madness. Sheep-killers can often be distinguished by a sharp and wild yell, very different from the tones of other dogs.”

It seems scarcely necessary to pursue the subject further; every encroachment on privileges long enjoyed, on all habits and customs—is viewed with distrust by the many, even when a satisfactory reason cannot be assigned therefor. But it is firmly believed, that a law passed containing the provisions suggested in this report, will finally redound to the benefit of all classes of the community.

In conclusion, as some time must necessarily elapse before legislation can possibly be had on this subject, the Committee, with great deference, will suggest a method by which sheep are greatly protected from all midnight depredators. It has been established, beyond the possibility of doubt, that, in a neighborhood notorious both for the depredations of rogues and dogs, a flock of 80 to 100 sheep has been protected, for several years, by suspending half a dozen bells to the necks of so many sheep. The effect is, that those timid animals, when pursued by men or dogs, immediately betake themselves to flight, and the sound of the bells will be heard over a neighborhood, and cause some one to come to the rescue; indeed, the pursuit is often abandoned, without other extraneous aid. No species of stock requires so little attention to its well-being as sheep, in our climate; and it is well ascertained that the quantity of wool raised, in our whole country, is insufficient for the supply of our factories and our immediate domestic wants. Every consideration, therefore, impels us to come to the protection, preservation, and increase of this most useful and valuable race of domestic animals. Your committee may present it as a fit subject of gratulation to every cultivator of our soil, that vast improvement has been made in our flocks, of latter years; and that Maryland may now boast of as fine mutton sheep as can be found in any state in our broad Union.

All of which is respectfully submitted.

N. GOLDSBOROUGH, *Chairman.*

ON KEEPING FARM ACCOUNTS,

AND ON THE ECONOMY OF SMALL FARMS COMPARED TO LARGE ONES.

IN an address by Mr. Carey, of Maryland, delivered at its late meeting at Baltimore, and by its request, to the State Agricultural Society, the orator adverted with originality and force of thought, and singular perspicuity of style, to various subjects, and among others, to the importance of keeping *more exact farm accounts*. And truly, it may be asked, how can any farmer feel satisfied or safe in his position, who does not know the amount of outlay and income, as well as the yield, from year to year, of each field, to the end that he may judge whether he is moving a-head, or, it may be imperceptibly, drifting astern? The books abound in forms of English accounts, but they are much more unsuitable to American farmers than English processes and implements. For what better object, it may be asked, could a society offer a liberal premium, than to the person who should present the simplest and most efficient and practicable form of keeping farm accounts, adapted to the husbandry, the institutions, and the economy of different States? We hope they will think of it.

Mr. Carey says of the size of farms:

“It is as clear as the demonstration of one of Euclid’s or Legendre’s propositions, that the smaller the surface from which a given amount of produce is obtained, the greater the profit to the producer, because the less the labor required to produce it. Figures will show this more clearly than words. I shall assume for this purpose a medium rate of production, say 40 bushels of corn to the acre, and for highly improved land, one, which though high, is clearly within our reach, say 80 bushels per acre: the cost of culti-

vation, the same in both cases, I shall put at \$5 per acre; the proposition reduced to figures will then stand thus:

20 acres, at 80 bushels per acre, 1600 bushels, at 60 cents, . . .	\$960 00
Cost of cultivation, at \$5 per acre,	100 00
Profit,	\$860 00
40 acres, at 40 bushels per acre, 1600 bushels, at 60 cents, . . .	960 00
Cost of cultivation, at \$5 per acre,	200 00
Profit,	\$760 00
Difference in favor of smaller surface,	\$100 00

"The amount of seed grain required, and of labor in the harvest, will, also, be less upon the smaller surface. The result will be similar at any other rates of production, or cost of cultivation, and in any other crop. Add to this, that the smaller farm will require less fencing, less ditching, (*ceteris paribus*,) and less labor in the transportation of manures to the field, and crops to the depot of the farm; and the proposition may be held to be demonstrated. We have very little idea, in this country, of the extreme productive capacity of the soil. Accounts occasionally reach us of extraordinary crops, raised in our own State; and the remarkable fertility of the deep alluvial soils of our great Western Valley is known to all. But I refer those who desire to see something like an approximation to this extreme, to the accounts given by the Rev. H. Colman, in his 'European Agriculture,' of the results of the 'allotment system,' which is beginning to be practised on some of the large estates in England."

But, with deference, we think the size of the farm should be, in a great measure, regulated by the capital at command of the cultivator, and on his own *capacity for that pursuit*; and it is but too true, unfortunately, that in our country, capital generally bears a *very small proportion* to the land. This is a point which needs, as we have often thought, to be more carefully dwelt upon, with a view to a *remedy*, if any can be suggested. Col. Capron gives us a notable item of \$3000 expended for manures in one year, and *with profit*; but even that, in reference to the size of the farm, is much below the expenditures in England, where it is contended that a man applying to rent 250 acres, should be prepared to show that he has a money capital of \$12,500, or \$50 an acre. Suppose a man to possess capacity and turn of mind well adapted to the business of agriculture, and to have the requisite capital; and we should say that 500 acres would not overtask his abilities, and that within that range every thing—his capital, his force, his own mind, might be made to *tell* profitably.

SOME SUGGESTIONS ON THE ACTION OF PLASTER OF PARIS.

BY PROFESSOR NORTON, OF YALE COLLEGE.

THE following communication from Professor Norton, of the School of Chemistry applied to Agriculture, is the best explanation we have seen of the action of gypsum, and of the reason why it acts powerfully on some soils, and is inert on others. Still, it seems somewhat wonderful that so small a *dust of it*—half a bushel, in some cases, to an acre—scattered over growing clover, in the spring, should so soon descend and become incorporated with, and act upon, the soil; but so it seems it does.

New Haven, Dec. 11, 1848.

Hon. J. S. SKINNER,—

DEAR SIR:—I have read with interest the various articles in the December number of your valuable journal; and desire to remark briefly upon one paragraph relative to the effect of plaster of Paris, or gypsum. This paragraph is upon the 369th page, and the essential part of it is as follows: "Mr. Stabler states that land which had before been insensible to the action of

plaster of Paris, when raised by clover, or otherwise, to a certain degree of fertility, becomes alive to the influence of that cheapest of all fertilizers, where it will act at all; and this, like other facts and considerations that might be adduced, would seem to show that its action is *not due to its attraction of fertilizing powers from the atmosphere.*"

The idea that plaster of Paris acted wholly by the absorption of ammonia from the atmosphere, originated with the great German chemist, Liebig; and the sanction of his name has given it general credence. I believe that in this matter, as in several others relating to agricultural science, he has erred through a lack of practical knowledge, and perhaps through the strong temptation to promulgate beautiful theories.

I think that experience points most plainly to at least a decided modification of his opinions. The instance above cited is one which the ammonia theory fails to explain. I at this moment recall one of a yet more decided character. I know of several localities, where, in adjoining fields, plaster exerts on the one a very marked influence, and on the other is of no use whatever. These two kinds of land are uniformly treated in the same manner, and always have been; yet this difference remains. There is no doubt but ammoniacal manures would do good on both of these soils; and yet, on one of them, the use of plaster never repays the outlay. Clearly we must look for some new explanation. This is to be found in the chemical composition of plaster. It is composed of lime and sulphuric acid, and is known to chemists as sulphate of lime. Now sulphuric acid is well known to be a powerful manure on many soils, and it is unnecessary to praise lime. In the case of the two adjoining fields above mentioned, the soil of one was formed from a species of shale, which contained scarcely a trace of either of these substances; and that of the other from a rock which had a pretty good supply of both. The inference in such a case is irresistible. We find the soil known to be without the constituents of plaster benefited, while the other remains unchanged; now ammonia should produce the same effect on both, if to supply it were the use of plaster. We must, therefore, conclude that the mineral constituents of the manure were of primary importance here.

Mr. Stabler's case is rather different. Here the soil must first be brought up to a certain degree of fertility, and then plaster acts. This will not seem strange when we consider the composition of the soil; that ten or twelve mineral ingredients are requisite to fertility. Plaster only contains two of these; and if others besides be wanting, the addition of it will of course not supply them. But when they are added, by green cropping or otherwise, the gypsum tells at once.

In all land, then, where plaster produces no decided effect, we may expect to find the constituents of that manure already present.

These are but hints upon a subject which would require very many pages for its full discussion.

Plaster undoubtedly has a strong tendency to the absorption of ammonia, and probably is often of benefit in that way; so that I would not so much condemn Liebig's theory, as simply unite another with it; these two causes of benefit to the soil affording an explanation to almost every case of perplexity. Much is yet to be learned on this subject; but the above view will, I think, be found correct in its main features, as well as practical in its applications.

I enclose a copy of the last circular issued from our laboratory, as I cannot remember having sent you one before. We have a fine class now of ten students, and our numbers are increasing; but not so fast as the demand for instruction in agricultural science. We shall not be able to supply it for a long period, even if our numbers are more than doubled.

I am, Sir, yours respectfully,

JOHN P. NORTON.

PUBLIC DAIRIES—PUBLIC THRESHING-MACHINES.

No reader of foreign agricultural and horticultural annals but must be sensible of the more rapid progress which would result to the march of both these industries, if societies and institutes, having ample funds from State and public patronage, would devote a little of their surplus energy (?) and means in this direction. Every day something recalls the mind to the usefulness of such an association, and such arrangements. How easy would it be to appoint a committee for the express purpose of importing specimens, models, drawings, books, &c.

Here we have, for instance, in a late agricultural gazette, an allusion to a recent work, explanatory of the "Management of Public Dairies in Switzerland," under which

"Each member of the association brings his evening and morning milking to the common dairy. It is measured, and an exact account kept of each delivery.

* * * Thus by means of the common dairy each member exchanges the amount of several days' milking for an equal quantity of milk, the produce of one day, which is converted into butter, cheese, &c., the same day, on premises arranged for the purpose, and by a person whose knowledge and skill insure the most advantageous results."

Now any one may imagine that in small towns and villages, and thickly settled neighborhoods, where every man keeps cows, many or few, what a convenience such an establishment must prove. Instead of getting often a little indifferent butter, that won't pay the expense of taking it to market, the man may wait one or two weeks, or even months, and then get it in a lump of the best quality, having previously engaged it. *Let us then see* the rules and management of such an establishment. But whose business is it to import it? Such things don't strike the bookseller. Well, in this case, the Editors of the Plough, the Loom, and the Anvil, have ordered that, as they will do *all books* of that sort.

Then, again, in the same paper, we see that in Switzerland, *threshing-machines*, and *steam threshing-machines*, are established on similar principles. The writer says he has seen a *steam threshing-machine* on wheels, which was "*very easily drawn from place to place.*" This was a private speculation, and was, with the necessary men, hired out at so much a day, or at a certain toll for the grain threshed, as the farmer pays at the country mill for grinding.

We have often thought, and still think, that if this government would offer Messrs. Norris & Brother, and other engine-makers, *half* as much for a machine to *ditch* or *plough* by steam, as it would give for a machine that would blow up a ship and *kill a thousand men* at one discharge, ten miles off, we should, years since, have had ditching, and draining, and ploughing, all done by steam, with as much saving of labor and time as steam now accomplishes for the *manufacturer and the merchant*.

All this will happen, when we have *really* attained that high degree of civilization which follows freedom, wealth, and population. At present we are not half-way on the march, for the producer is *yet in the rear ranks of society*, instead of being in the front. In a state of barbaric nature, the warrior stands at the top of the list; so he does yet, but not so much head and shoulders above all others as he did, even half a century ago. Among real barbarians, the exchanger stands next to the warrior, and the producer last, and so it is still, but the farmer is coming up. *We* have seen him sensibly gaining on the other classes that live on him, even in our own time. He begins to have sense enough now to see, and self-respect enough to assert, that, as he feeds all other classes, he has *some* right to something

like a proportionate share in the power of legislation for the whole. Still, however, he is only beginning to see his rights and his consequence ; but as yet it is only a dim view that he catches, such as we get looking through a dark glass dimly at an eclipse. And hence it is, that you can see a people, such as the American people, numerous, powerful, enlightened, free ; with old women enough to beat off all invaders with broomsticks ; submitting to pay twenty millions of dollars annually for military establishments and schools, and in return, to take for themselves *some statistical facts and conjectures, cut out of newspapers, and made up in one of the bureaus of a public department !* Ah, we are a wonderful people !

CORN AND CARROTS.

Fine Yield of Corn.—We learn from the Port Tobacco, Md. Times, that on Col. Wm. D. Merrick's Glavis farm, twelve barrels and three bushels of corn were taken from a single acre. The acre selected is much inferior to many others, and the yield of this acre is "but a fair average of one hundred and fifty circumjacent acres of the same field." This is all certified to.

That would make sixty-three bushels to the acre, worth say 50 cents, or \$31 50 per acre. This is fully equal to the production in the West—nine thousand four hundred and fifty bushels from one field. We should like to know the price that such land will command—the kind of corn, and how many acres to a plough ? And again, why it is that the population of Charles county, where this corn is supposed to have been made, had diminished five hundred in population between 1820 and 1840 ? But look here again—

Great Agricultural Yield.—Capt. Nye has raised this season, on his farm at Clinton Place, near Newark, N. J., six hundred and three bushels of white or Belgium carrots to the acre, an amount of produce probably never exceeded in that climate.

Now if Col. Merrick could have had, as Capt. Nye had, the manufacturer along side of the agriculturist—the consumer near the producer—then the same land might have been employed in producing *tons* instead of bushels. Here we see one acre producing ten times as much money, gross sales, in New Jersey, as in Maryland—but in New Jersey *the loom and the anvil are near to the plough*, while in Maryland they are a great way off. Corn, of which the earth bears little, will bear keeping and transportation, carrots will not. In Jersey they make their ploughs and their wagons for themselves and others. In Maryland, they send to Jersey and other Northern States for them. If that most magnificent of all water-powers, the great falls of Potomac, were not prevented, by "man's inventions," from being put to the uses for which a bountiful Providence designed it, we should have from Montgomery county, too, the substitution of six hundred and three bushels of carrots instead of forty bushels of corn, as noted in the following :

Montgomery County, Md.—There is a great deal of land in our county, which, a few years ago, would scarcely pay for its cultivation, that now produces well. We know of one lot of one hundred acres of such land, that last year produced over eight hundred barrels of corn. We also know of some smaller lots, on which ten barrels per acre were raised. Much of this description of land, now poor, but readily improved at a low cost, can be purchased very cheap.—*Rockville Jour.*

But ——— let us "live and learn." True it is, let us hope, that we are learning ; but are not cultivators of the soil the slowest to learn of all the classes that make up human society ? Is there one among them, on an average, who ever undertakes to study the political causes of the fluctuations and depressions that take place in the price of his staples. Here is a journal devoted to that object, but will they encourage a work which *urges them to think for themselves ?* In Charles county we have, we won't say how—few subscribers.

THE HORTICULTURAL SOCIETY OF MASSACHUSETTS.

ANY Southern reader would have a right to look upon a full statement of what has been done in the hard, cold, rigorous climate and soil of Massachusetts for the advancement of horticulture, by Dearborn, Wilder, Walker, French, Breck, and their associates, as an exaggeration, a little tinged with *colour de rose*. For ourselves—seeing is believing, and tasting is the naked truth—still we shall make no attempt at describing what we have there seen, in the way of fruits and flowers, as well in and around the magnificent villas and highly cultivated grounds around Boston, as in their Exhibition Hall. If it were not for the indomitable perseverance of that people, and the well-rooted love of such pursuits, which no vicissitude now can shake or wither, we might have some fears for the effect of Mr. Wilder's retirement from the presidency, so much against the wishes of the Horticultural Society; but, however engrossed with the labors of the business-man, the passion for this beautiful occupation of the heart and mind, once established, as with him, and becoming, as it were, second nature, will insure in him always a ready, and reliable counsellor in case of emergency; and with such collaborateurs the Massachusetts Horticultural Society may ever be looked to, as the great parent tree, ready at all times to supply grafts and scions for the whole country.

As to the stocks upon which the country may draw, in the apple department, and in respect of the fruit yielded by the *zeal* of which we have often spoken without exaggeration, we might be content to refer to the following list of specimens exhibited by the friend whom we took the liberty at the late festival to designate for the variety and extent of his contributions. We might be satisfied with stating the number in the aggregate; but we prefer to give the entire list for once, to show to our Southern friends who think they do well, and really do excel, when they can show some half dozen varieties of apples—sometimes neither the best, nor the best cared for. They will here see that *when there is a will there is a way!*

Be it remembered that Mr. French is an amateur fruit-grower of independent fortune, not following the cultivation of fruits as a trade; though if he did—and honestly, it would not be easy to find a more useful or honorable pursuit—far more so than that of politics or war when followed as a trade.

Mount Monatiquot, Braintree, September 25, 1848.

Hon. J. S. SKINNER:—Dear Sir, I send you, according to your request, a list of the Apples exhibited by me at the late Triennial Exhibition of the Massachusetts Horticultural Society. (The list contains but a part of the variety I have in cultivation.)

Porter,	Sugar Sweet,	Ribston Pippin,
French's Sweet,	Yellow Newtown Pippin,	Pomme d'Apis,
Winter Gilliflower,	Royal,	Fearn's Pippin,
Baltimore,	Dominisk or Lord's,	Black Apple of Cox,
Canada Reinette,	Murphy,	Ross's Nonpareil,
Monstrous Pippin,	Spice Apple,	De Neige,
Seeknofurther,	Adams' Sweet,	Wellington,
Blenheim Oronge,	Parmain,	Hubbardstown Nonsuch
Kenrick's Autumn,	Grovenstein,	White Seeknofurther,
Golden Russett,	Lyscom,	Baldwin,
Fall Greening,	Blooming Red,	Pumpkin Russett Sweet,
Hawthornden,	Donver's Winter Sweet,	Esopus Spitzenberg,
Jonathan,	Been Apple, (sweet,)	Seaver's Sweet,
Nonsuch,	Roxbury Russett,	Fallawater,
Dutch Codlin,	Pennock,	Ruggles,
Sweet Greening,	Nonpareil,	Large Striped Red,
Wine,	Yellow Bellflower,	Mele Carle,
Long Nonsuch,	Hoary Morning,	Gardner's Sweet,
Wales Apple,	Long Russett,	Burrasoe.

16 varieties names lost—74 varieties in all.

Yours, with respect,

B. V. FRENCH.

TABLE OF PRICES.

Louisville, Kentucky, Sept. 14, 1848.

MESSRS. EDITORS: GENT.:—I give below the form of a table which, when filled up, would interest your readers, and enable them to prove the correctness of your theories, that the cultivation of rich soils not only lessens the money price of labor, but increases the wealth of the laboring classes. If the consumer of food should be by the side of the producer, it is important that the *locus in quo* should be in a district of a larger food-producing capacity. The seed should be sown not on the sandy plains of New Jersey or the "stony land" of New England, but on the rich alluvials wherever they can be found, and at points easily accessible and salubrious. I give the prices, &c. in and around this city: with your facilities of obtaining information, you can readily fill out the table with the prices of the same articles at Manchester, Glasgow, Lyons, and other places where our food is now consumed, and where are made the articles we consume.

	Louisville.	New York.	Philada.	Boston.
Value of land suitable for vegetables, and 3 miles from city—per acre,	\$1.25			
Corn-producing capacity of land in the vicinity, and without manure—per acre,	45			
Value of lots in the suburbs, per square foot,	1.43			
Price of brick laid in the wall, per M,	6.50			
Ordinary laborer's wages per day,	75			
Wages of journeymen mechanics per day,	1.25			
Female house servants, per week,	1.50			
Farm laborers, per month,	10.00			
Taxes, on \$100 property,				
<i>Average prices for the year, at retail.</i>				
Coal, per bushel,	12			
Hard wood, per cord,	2.50			
Hay, per ton,	8 00			
Apples, per bushel,	25			
Flour, per bbl.	4.50			
Corn meal, per bushel,	35			
Potatoes, per bushel,	30			
Butter, per lb.,	15			
Eggs, per doz.,	7			
Turkeys, per lb.,	6			
Chickens, per pair,	25			
Cabbages, per head,	2			
Pork, per lb.,	3			
Beef, per lb.,	4			
Population of Louisville, say	46.000			

We shall feel very much obliged to any friend or friends of domestic industry, who will fill up these blanks for towns from New Orleans to Boston, and when we get their letters, we can make out and publish a table. This letter was mislaid, or would have been sooner published.

INSURE YOUR LIVES.

WE have room for but a line, but gladly use that;—so much do we wish to let our friends in the country know how practicable and how advisable it is for them to *get insurance on their lives*, and thus save their families from future want, by a small present payment. How easy for every one to retrench enough to cover this object! In another number we will explain, having time now only to call attention to the advertisement of the CONNECTICUT MUTUAL LIFE INSURANCE COMPANY, on the cover of this number.

MIGRATION OF BIRDS.

It is a curious fact that the males of migrating birds, or at least of some species, arrive some weeks before the females. An experienced and intelligent bird-catcher assures me that the male nightingale generally makes its appearance in this country about the first of April, and the female about a month afterwards; and that his song increases in power, and is longer continued, when the period for the arrival of the female is near at hand. A favorite bush having been selected, the nightingale awaits the appearance of his mate in or near it, singing his song of love, and greeting her arrival with all the little blandishments of affection. When she begins to sit, his song is less frequent and less powerful, and ceases soon after the young are hatched.

The black-cap, whose song is scarcely less pleasing than that of the nightingale, arrives also some time before the female, and calls her to him in the same manner. I have one of these birds in my possession: his song is wild and sweet; and, as Mr. White says, when he sings in earnest he pours forth very sweet but inward melody, and expresses great variety of soft and gentle modulations, superior, perhaps, to those of any of our warblers, the nightingale excepted.

The bird-catcher above referred to showed me his call-birds, and gave me some proofs of their skill. On seeing strange birds, they immediately begin their call, which is succeeded by their song, and this seldom ceases till the wild birds are trapped. He says the call-birds then show a degree of pleasure which cannot be mistaken; and he seems persuaded that his birds are fully aware of the purpose for which their call and song are required.

The wheat-ear arrives about the middle or end of March, and builds its nest in rabbit-burrows. At least they do so occasionally, as I have had one brought to me which was found in digging out a rabbit. A shepherd, whom I met on the Brighton Downs, informed me that these birds are annually getting less numerous, and forsaking those haunts which they formerly most frequented.

Magpies congregate in considerable numbers: sometimes from twenty to thirty in a flock. Probably the want of wood keeps them together as a precautionary measure; and they have a scout, like the crow, who looks out for danger while his companions are feeding. They are wild, and take long flights on being disturbed.

The periodical flight of birds is very curious. That in the spring is much less con-

siderable than the autumnal one; September, October, and November being the chief months for the passage of various kinds of birds. Bird-catchers state that the flights take place from daybreak to twelve at noon, and sometimes from two o'clock till it is nearly dark. Birds fly against the wind during their passage, with the exception of the chaffinch, who flies across it. The male chaffinches are observed to fly by themselves, and are shortly followed by the females. This is also the case with the tit-lark.

Birds flock together in February to choose their mates; and probably in the autumn, for the purpose of leading their young to places where they can procure food, or enjoy a climate congenial with their nature. Many flocks of birds, however, appear and disappear in places where they had not previously been seen for many years. Our assemblages of birds, however, are nothing when compared with the flocks of the passenger-pigeon (*Columba migratoria*) of America. Audubon, in his *Ornithological Biography*, gives a curious and interesting account of the flight of these birds. He says that, in passing over the Barrens, a few miles from Hardensburgh, he observed the pigeons flying from north-east to south-west in greater numbers than he had ever seen them before; and, feeling an inclination to count the flocks that might pass within the reach of his eye in one hour, he seated himself on an eminence and began to mark with his pencil, making a dot for every flock that passed. In a short time finding the task impracticable, as the birds poured in in countless multitudes, he rose, and, counting the dots already put down, found that one hundred and sixty-three had been made in twenty-one minutes. He then travelled on, and still met more as he proceeded. The air was literally filled with pigeons; the light of noonday was obscured as by an eclipse, the dung fell in spots not unlike melting flakes of snow, and the continued buzz of wings had a tendency to lull his senses to repose. Throughout the day, immense legions were still going by, and, on his arrival a little before sunset at Louisville, distant from Hardensburgh fifty-five miles, the pigeons were still passing in undiminished numbers, and they continued to do so for three days in succession.

Mr. Audubon makes the following curious estimate of the number of pigeons contained in *one only* of these mighty assemblages. Taking a column of one mile in breadth, which he thinks is far below the

average size, and supposing it to pass over without interruption for three hours, at the rate of one mile in a minute, it will give us a parallelogram of one hundred and eighty miles by one, covering one hundred and eighty square miles. Allowing two pigeons to the square yard, we have eleven hundred and fifteen millions one hundred and thirty-six thousand pigeons in one flock. As each pigeon daily consumes fully half a pint of food, the quantity necessary for supplying this vast multitude must be eight millions seven hundred and twelve thousand bushels a day. Nor is the account of their roosting places less curious. One of these, on the banks of the Green River in Kentucky, was repeatedly visited by Mr. Audubon. It was in a portion of the forest where the trees were of great magnitude, and where there was little underwood, and the average breadth was about three miles. On arriving there about two hours before sunset, few pigeons were to be seen. A great number of persons, however, with horses and wagons, guns, and ammunition, had already established themselves on the borders. Two farmers had driven upwards of three hundred hogs from their residence, more than a hundred miles distant, to be fattened on the pigeons which were to be slaughtered. The sun had set, yet not a pigeon had arrived. Every thing, however, was ready, and all eyes were gazing

on the clear sky, which appeared in glimpses amidst the tall trees. Suddenly there burst forth a general cry of "Here they come." The noise which they made, though yet distant, is described as like a hard gale at sea passing through the rigging of a close-reefed vessel. As the birds arrived, they were knocked down by thousands by the pole-men. As they continued to pour in, the fires were lighted, and a magnificent, as well as wonderful, sight presented itself. The pigeons, arriving by myriads, alighted everywhere, one above another, until solid masses, as large as hog-heads, were formed on the branches all round. Here and there the perches gave way under the weight, with a crash, and falling to the ground, destroyed hundreds of the birds beneath, forcing down the dense groups with which every stick was loaded. The pigeons kept constantly coming, and it was past midnight before a decrease in the number of those that arrived could be perceived. The noise made was so great that it was distinctly heard at three miles from the spot. Towards the approach of the day the noise in some measure subsided, and long before objects were distinguishable, the pigeons began to move off in a direction quite different from that in which they had arrived the evening before, and at sunrise all that were able to fly had disappeared.

PLANTS AND SEEDS.

Few things appear to me more curious than the fact, that the seeds of various plants and flowers, which have lain dormant in the ground through a succession of ages, have vegetated on being exposed to the air, or have been brought into action by the application of some compost, or manure, agreeable to their nature.

This was shown in trenching for a plantation a part of Bushy Park, which had probably been undisturbed by the spade or plough since the reign of Charles I., or still longer perhaps. The ground was turned up in the winter, and in the following summer it was covered with a profusion of the tree mignonette, pansies, and the wild raspberry, plants which are nowhere found in a wild state in the neighborhood; and, in a plantation recently made in Richmond Park, a great quantity of the foxglove came up after some deep trenching. I observed a few years ago the same occurrence in a plantation in Devonshire, the surface of which was covered with the dark blue columbine. A

field also, which previously had little or no Dutch clover upon it, was covered with it after it had been much trampled upon and fed down by horses; and it is stated, from good authority, that, if a pine forest in America were to be cut down, and the ground cultivated, and afterwards allowed to return to a state of nature, it would produce plants quite different from those by which it had been previously occupied. The *Hypocoum procumbens* was lost in the Upsal garden for forty years, but was accidentally resuscitated by digging the ground in which it had formerly grown. A species of *Lobelia*, which had been missing for twenty years in the Amsterdam garden, was unexpectedly recovered in the same manner. There is a very curious account in Monson's *Preludia Botanica*, of the appearance of a species of mustard, *Sisymbrium Iris*, after the fire of London, and another species, *Sisymbrium Panonicum*, made its appearance suddenly among the ruins, after the fire of Moscow, and continues abundant there ever

since. A gentleman tells me that he saw a crop of barley where oats had been sown, in Glamorganshire, and the farmer assured him that the ground had not been stirred before for thirty years. A similar circumstance occurred in Scotland. So completely indeed is the ground impregnated with seeds, that if earth is brought to the surface, from the lowest depth at which it is found, some vegetable matter will spring from it. I have always considered this fact as one of the many surprising instances of the power and bounty of the Almighty, who has thus literally filled the earth with his goodness, by storing up a deposit of useful seeds in its depths, where they must have lain through a succession of ages, and which only require the energies of man to bring them into action. In boring for water lately at a spot near Kingston-on-Thames, some earth was brought up from a depth of three hundred and sixty feet; this earth was carefully covered over with a hand-glass, to prevent the possibility of any seeds being deposited upon it, yet in a short time plants vegetated from it. If quick-lime be put upon land which, from time immemorial, has produced nothing but heather, the heather will be killed, and white clover spring up in its place.*

The care which is taken to supply the ground with those seeds which, being of a farinaceous nature, would not preserve their vital powers through a succession of ages, as other seeds do, is very curious. Many of them are deposited by crows, and other birds and animals. The Rev. Mr. Robinson,† in his Natural History of Westmoreland and Cumberland, says, that "birds are natural planters of all sorts of trees, disseminating the kernels upon the earth till they grow up to their natural strength and perfection." He tells us that early one morning he observed "a great number of rooks very busy at their work, upon a declining ground of a mossy surface, and that he went out of his way on purpose to view their labor. He then found that they were planting a grove of oaks.‡ The manner of their planting was thus: They first made little holes in the earth with their bills, going about and about till the hole

was deep enough, and then they dropped in the acorn, and covered it with earth and moss." "The young plantation," Mr. Robinson adds, "is now growing up to a thick grove of oaks, fit for use, and of height for the rooks to build their nests in. The season was the latter end of autumn, when all seeds are fully ripe."

Mr. Edwards observes that even the droughts of the autumn continue to increase and propagate seeds and plants; for, by causing deep chinks or chaps in the earth, the seeds of trees and larger plants that require depth are lodged at proper depths for their growth, and at the same time secured from such animals as feed on them.

Mice bury a great number of seeds for their winter store, many of which vegetate: and some seeds are provided with a sort of down, by which they are carried, with the help of the wind, to great distances: others fix themselves on the ground by means of a glutinous substance attached to them.

It is a curious fact, that more recent deposits of earth, such as peat, leaf-mould, &c., produce little or no vegetable substances, while, as has been shown, soil, from whatever depth it is brought, is impregnated with seeds, which grow freely on being exposed to the influence of light and air.

The coral reefs in the South Seas are first of all covered with marine substances—then with the excrements of birds, in which are undigested seeds that spring up and flourish in the deposits which have been formed on the reefs. So various are the ways in which a beneficent Providence has enabled the earth to produce food for the benefit of his creatures, making a small migrating bird, or an insignificant insect, the instrument of his power and goodness.

The influence which particular soils have on the colors of flowers is very curious. Whoever has attended to the growth of the better sort of tulips knows that, by planting them in too rich a soil, the colors will run; and unbroken tulips, that is, new varieties from seed, sooner obtain their perfect colors by being removed from one soil to another. If a common wild primrose is taken up, and the root separated and planted in another soil, the blossom loses its brilliant yellow hue, and becomes of a pale brown or light chocolate color.

The tendency observed in plants to follow light, which is so necessary for them, makes them display a power approaching to real motion. The following exemplification of this tendency is taken from the Memoirs of the American Academy of Arts and Sciences at Boston.

* The *Didymodon flexifolium* was seldom to be found by even the keenest muscologists. Dr. Greville discovered a patch of it where heath had been burnt in Devonshire, and since that it has been found in several places in Scotland and elsewhere in similar situations.

† This being told by a reverend gentleman, we must believe it; but the probability is, they intended to return and disinter them, as the dog does the meat he buries.

‡ I have observed in another place that rooks probably bury seed for the purpose of feeding upon them in the winter.

In the spring a potato was left behind in a cellar where some roots had been kept during the winter, and which had only a small aperture at the upper part of one of its sides. The potato, which lay in the

opposite corner, shot out a runner, which first ran twenty feet along the ground, then crept up along the wall, and so through the opening by which light was admitted.

MANUAL OF MANNERS.

MUCH of what follows under this head may seem to be rather intended for, if not particularly adapted to the other half of the human race; but as the aim is to exhibit the moral principle of good breeding, which is of universal applicability, we choose to lay up this manual of manners in the Mothers' Department, and if gentlemen never go into their departments for any worse purpose than to study the principles of good manners, all we have to say is, that they would have less occasion to pray "forgive us our trespasses."

The subject will be treated under the heads, Politeness, Demeanor, Outward Appearance, Visiting, Conduct at Table, Amusements and Recreations, Conversation, Occupation of time, Choice of Books, Punctuality, Business Correspondence, Confidential Intercourse, and General Maxims.

POLITENESS.

As man is a social being, that science must be an important one which teaches him how to conduct himself in society. It is called politeness, and all real politeness is, and must be, founded on moral principle. Manners and morals indeed are so nearly allied, that politeness is nothing more than a sort of philosophical combination of the two; while what is called etiquette possesses too often very little share of either.

Politeness is the art of pleasing. It is to the deportment what the finer touches of the pencil are to the picture, or what harmony is to music. In the formation of character it is indispensably requisite. "We are all," says Locke, "a kind of chameleons, that take a tincture from the objects which surround us." True courtesy, indeed, chiefly consists in accommodating ourselves to the feelings of others, without descending from our own dignity, or denuding ourselves of our own principles. By constant intercourse with society, we acquire what is called politeness almost intuitively, as the pebbles of the sea-shore are rendered smooth by the friction of the waves. But, like every other branch of education, it is more easily acquired in youth than when the mind has been formed, and the habits confirmed, by increase of years.

A striking characteristic of courtesy is, that it is more calculated to win esteem

than either wit or learning is; because it has a tendency to gain for us the respect of our fellow-creatures, while any appearance of superiority or pretension only excites ill-will.

Religion itself teaches us to honor all men, and to do unto others as we would that others should do unto us. This includes the whole principle of courtesy, which in this assimilates to the principle of justice. It comprises, indeed, all the moral virtues in one, consisting not merely in external show, but having its motive in the heart, and moulding and guiding the disposition. The politeness which superficial writers are fond of describing, has been defined as "the appearance of all the virtues, without possessing one of them;" but by this is meant the mere outward parade, or that kind of artificial adornment of demeanor, which owes its existence to an over-refinement of civility, or rather to a too strict compliance with etiquette. What is forced or formal is contrary to the true character of courtesy, which is prompted and guided by superiority of mind: one of the essential characteristics of politeness being goodness of disposition, and the inclination always to look at the bright side of things.

The principal rules of politeness are:—

To subdue the temper.

To submit to the weaknesses of our fellow-men.

And to render to all their due, freely and courteously.

To do this effectually it requires—judgment to recommend ourselves to those whom we meet in society; and discrimination, to know when and to whom to yield; as well as discretion to treat all with deference due to their reputation, their station, or their merit.

Sincerity is another essential characteristic of courtesy. It is the want of this which makes society what it is said to be, artificial.

Good breeding, in a great measure, consists in being easy, but not indifferent; good humored, but not familiar; passive, but not unconcerned. It includes, also, a sensibility, nice, yet correct, a tact, delicate, yet true. There is a golden mean in the art, which it should be every one's object to attain, without descending to obsequiousness on the

one hand, or to familiarity on the other. In politeness, as in every thing else, there is the medium between too much and too little—between constraint and freedom; for civilities, carried to extreme, are wearisome; and mere ceremony is not politeness, but the reverse.

The true Christian is the truly courteous. "Religion," says Leighton, "is in this mistaken sometimes, in that we think it imprints a roughness and austerity upon the mind and carriage. It doth, indeed, bar all vanity and lightness, and all compliance;" but it softens the manners, tempers the address, and refines the heart.

A failing in conduct, or an infirmity of temper, is more easily excused in society than any deficiency in politeness. To please, one must possess that indescribable charm which real refinement alone can impart, and which true politeness only knows how to appreciate.

Arrogance is one of the greatest obstacles to courtesy. He who presumes too much on his own merit, shows that he does not understand the simplest principles of politeness. Pride is highly culpable. No man, whether he be the king on the throne, or the meanest beggar in his realm, possesses any right to comport himself with a haughty or discourteous air towards his fellow-man. The poet truly says—

"What most ennobles human nature
Was ne'er the portion of the proud?"

A kind word, or a gracious smile, will secure that good-will, which a haughty demeanor, or a high look, may forfeit for ever.

The really courteous man has a thorough knowledge of human nature, and can make allowance for its failings. He is always consistent with himself. The polite alone know how to make others polite; as the good alone know how to inspire others with a relish for virtue.

A taste for literature generally tends to improve the manners, and to cherish in the mind a desire for the refinements of society; though many literary persons do not cultivate this taste as they ought. Men of erudition are often deficient in address, because they have neglected the outward appearance, and the cultivation of the manners,

considering these as beneath their notice. They have lived more among their books than in society; and while they have been improving and enriching their minds, they have paid comparatively little attention to the ordinary courtesies of life; which men of inferior pretensions, the children of this world, wise in their generation, assiduously cultivate. Such persons are not so ignorant of human nature as not to know that mankind generally look no deeper than the surface; and that in society, showy accomplishment is too often preferred to real merit.

True politeness makes life agreeable. Without it the observances of society degenerate into cold and idle ceremony. It prompts us to be on good terms with every one; or, if otherwise, it furnishes us with the tact to conceal our feelings and our dislikes. A well-bred man seldom complains of the want of proper attention on the part of others. Self-possession is one of the essential points of his character; and he is not easily induced to forget his own place, or be guilty of any thing calculated to deprive him of that proper respect which he feels to be his due.

A truly well-bred man shows his politeness also by the encouragement and affability with which he treats those who may appear abashed in his presence. He feels a pleasure in relieving the distress of one who thus discovers his embarrassment and want of breeding, and strives to put him at ease with himself and with all around him; for therein consists the great art and charm of true politeness.

Another characteristic of politeness is, that it is differently illustrated in different individuals. The clergyman, for example, is, and ought to be, more dignified and affable than the member of any other profession, yet the latter may be equally well-bred in his way. Society respect only such a tone as is in unison with a man's condition and character: pretension or assumption being quite foreign to good breeding. Like all arts, however, politeness has its limits, and the well-bred man knows his own position too well ever to consider it necessary to step beyond it.

SNOW-STORM SONNET.

Old father Winter's powdering o'er his hair;
Grim Vanity! he's gray enough already,—
For one so old, he ought to be more steady,
Yet he's as fickle as the springtime fair.
But yesterday, his was a balmy breath—
To-day he blusters, sending out his frost
To nip the buds, and smite with sudden death
The tender flowers that venture forth to peep

If cruel Winter yet has fallen asleep:
The daring act their gentle life has cost.—
Thus died Louise, our tenderest summer
flower,
So meek, so mild, so beauteous in her bloom:
The blast of winter howl'd around her
bower,
She shrank away, and hid within the tomb

COOKERY.

Les Anglais ne cuisent leurs legumes qu'à l'eau ; encore ne sont ils qu'à moitié cuits.—S. P. sur la Cuisine Anglaise.

THE advancing spring renders it incumbent on us to say something about vegetables, in the cooking of which, so as to render them wholesome and easy of digestion, our cooks are wofully deficient. In England and America, animal food seems to be the principal article of nourishment, bread or other vegetables being only an accompaniment necessary to enable us to swallow the meat, and being scarcely deemed a palatable food if taken alone. The fact is, that among us the cooking of vegetables is in so primitive a state as to be almost wholly confined to boiling them, or rather to parboiling them, in water, with the addition of a little salt, and perhaps of a little pearlsh, to keep them green. Of course we do not allude here to potatoes and other roots. Cabbage, brocoli, and cauliflowers are extremely nutritious and wholesome when properly prepared, but are, especially the former, exceedingly indigestible when served up in the usual English mode, half raw, to be eaten with meat and melted butter. Greens of every kind, turnip-tops, and colewort, are not only agreeable to the palate, but good purifiers of the blood, and have a gentle cathartic action, provided they are not eaten without undergoing a sufficient quantity of boiling before they are prepared for the table; for to eat them simply boiled is to swallow them as the hungry hog would devour a thistle. Endive is a delicious vegetable when it has undergone the culinary art, though in England it is scarcely ever used but in the form of salad. Lettuces are also delicious when dressed in various ways, as are also cucumbers, which with us are used only in their raw state with vinegar, thereby engendering, if eaten to excess, that most afflicting malady, the cholera morbus. Spinach, a most wholesome and digestible vegetable, one adapted to the most delicate stomach, and which acts most beneficially upon the system, is, when eaten in its unsophisticated state—that is to say, its leaves plain boiled—one of the rankest and most disagreeable of the garden tribe; and yet it is served up in this state at our tables. We could enumerate a great many other delicacies of the kitchen garden either not used by us, or rendered unwholesome by our mode of cooking them.

The principal things to be attended to in the cooking of vegetables, is to take care that they are sufficiently softened to be digestible; that the most grateful flavour they are

capable of producing is developed; and that any rank or disagreeable taste that may belong to them is got rid of. The means of effecting these three things lie in a very small compass. The first is attained by boiling them a sufficient time; and the second and third by changing the water several times during the operation of boiling, and by the addition of a little sugar, salt, or spice, as the case may require it. As an instance of the mode by which the most unpleasant flavor may be destroyed in a vegetable production, and the most agreeable of which it is susceptible rendered predominant, we shall relate a circumstance that occurred to ourselves, a few years since.

Being at Bourdeaux, we one day gave a dinner, at the hotel in which we lodged, to a few English friends whom we had met there. Anxious to taste, and let our guests taste, a *gigot à l'ail*, (a leg of mutton and garlic,) a dish for which the Bourdelais cooks are celebrated, we ordered one as part of the repast. When the roast was placed upon the table at the second course, it appeared to us all to be a *gigot aux haricots*, (a leg of mutton and dried kidney-beans;) but the meat was delicious, and the beans certainly superior to, and having a different flavor from, any *haricots* we had ever tasted before. Vexed, however, at what we considered an inattention to our orders, we summoned the landlord, and begged to know why, when we had ordered a *gigot à l'ail*, he had presumed to send up a *gigot aux haricots*?

"I have shown no inattention," he replied, "and made no mistake. The dish of which you have just eaten, and which your guests seem to have liked, was a *gigot à l'ail*, and what you have mistaken for beans is garlic."

"Is it possible!" we exclaimed. Again we tasted the garlic; its rankness was gone, but there was in it a delicious flavor for which we could not account. After apologizing to our host,—"If the question be not indiscreet, and the matter no secret, how can you impart this delicious flavor to garlic?" we asked.

"There is no secret in the case," he replied; the process is very simple. The garlic is thrown into five different boiling waters, with a little salt, and boiled five minutes in each. It is then drained, and put into the dripping-pan under the roasting mutton."

Since our return to England, we have often had this dish dressed; and no guest of ours, until he was told of it, ever discovered that he had been feasting upon garlic.

The next thing to which we must direct the reader's attention is spinach, a vegetable which we cannot too strongly recommend. It must be prepared as follows:—

After being carefully picked and washed four or five times in abundance of water, let it be put into boiling water containing some salt, in a large vessel where it may have plenty of room. The leaves that rise above the water must be pressed down. When the spinach is about half done, take it off the fire, strain it, and prepare some more boiling water and salt, in which it must be again boiled till sufficiently done. The moment it is so, throw it into a cullender and keep pouring cold water over it for some time; then make it into balls, and with your hands press out every drop of water it contains; afterwards chop it very fine until it becomes almost a paste.

Now put a lump of butter into a stew-pan, and place the spinach upon the butter; let it dry gently over the fire. When the moisture is evaporated, dredge it with a little flour, then add a small quantity of good gravy, with seasoning to your taste; let it boil up, and serve it up with sippets fried in butter.

The Parisians are very fond of spinach with sugar, which is a great delicacy, and may be prepared in the following manner:—Boil some good cream just before you put the spinach in the stew-pan with the butter. When you have added the flour to the spinach as before directed, together with a little salt, put in the cream with some sugar and nutmeg, let it simmer for ten minutes, then serve it up on sippets, with a very small

quantity of pounded lump-sugar strewed over it.

We now come to endive, than which nothing can be more grateful to the palate when nicely prepared.

The endive, after being well picked and washed, must be parboiled in four different waters, to destroy the bitterness peculiar to it. It must then be boiled in salt and water until done, when it must be thrown into cold water, squeezed and chopped fine. It may then be put into a stew-pan upon a lump of butter, and a few young onions chopped very small added to it. Let it dry, then dredge it with half a table-spoonful of flour, and add some gravy, some seasoning, and two lumps of sugar; let it stew very gently during a quarter of an hour, then serve it up, either alone on sippets, or under sweetbreads, fricandeau, or mutton chops.

We conclude this article, with a mode of dressing cauliflowers with Parmesan cheese.

Having boiled the cauliflowers, prepare a sauce in the following manner. Into a quarter of a pound of butter, rub a table-spoonful of flour. Then put it into a stew-pan; as the butter melts, add by degrees half a pint of water, or a little more if you require more sauce. Stir the whole until it boils; after it has boiled a couple of minutes, take it from the fire, and when entirely off the boil add the yolk of an egg beat up with a little lemon juice and half a table-spoonful of soft water. Shake the stew-pan till the whole is mixed and the sauce set.

Now powder the cauliflowers with rasped Parmesan cheese. Then pour the sauce over them; when the sauce is firmly set upon them, cover the surface with rasped cheese and bread crumbs, and brown it with a salamander.

THE WHOLE DUTY OF WOMAN.

CHASTITY.

WOULDST thou be honored of thy Creator; wouldst thou be happy in thyself; wouldst thou be lovely in the eye of man? Without chastity thou wilt be neither of these.

For its loss is the loss of peace and satisfaction to thy soul; and the consequences too often the worst that can befall thee.

He that robbeth thee of it, will despise thee, and expose thy want; and she that hath in secret forfeited her own will hold thee in much contempt.

Behold the house of incontinence; the mark of infamy is indelibly stamped on the threshold and on the posts of the door.

At the window sitteth misfortune, forcing a smile; and within are remorse and disease, and irretrievable misery.

The children of her house are the curse of their mother, and their lives the growing monuments of their infamy.

Art thou chaste? Boast not therefore; the security of thy possession is as brittle as glass, that may by accident fall and be broken.

Be on thy guard, for thou knowest not the weakness of thy nature, nor the power of temptation.

Is there a man with whom thou delightest to talk, let not thine ear be too familiar with his discourse.

Doth he teach philosophy and entertain thee with the researches of knowledge, yet beware lest he instruct thee too far.

Is he accounted modest and sober and virtuous, depend not on the truth of these pretences.

Doth he promise thee fair; doth he protest in the sincerity of his heart he meaneth no harm? Yet believe him not; neither put confidence in his discretion.

Doth he only ask a kiss of thy cheek? Indulge not his frequent request, lest the sweetness thereof inflame him to desire, and the poison of his lips descend into thine own bosom.

Taste not the wine when the bowl goes a second time round; join not often with him in the sprightly dance; nor suffer opportunity to overtake thee.

By avoiding temptation thou mayest preserve thy chastity; but man is the serpent of deceit, and woman is the daughter of Eve.

ACQUAINTANCE.

Who is she that biddeth thee good morrow; that kisseth thy cheek at parting, and giveth thee an invitation to her house?

She is an acquaintance; believe her not; go thou to her home, tarry awhile and thou wilt find her out.

The coldness of her respect will appear in thy welcome, and the distance of her behavior will pall thine entertainment.

Doth she promise thee much in thy prosperity, and wish an opportunity to oblige thee, thou shalt see her avoid thee in the day of thy trouble, her door will be shut against thee, and thy name estranged from her knowledge.

Doth she sympathize in thy misfortune; doth she tell her sorrow for thy present distress; yet her cheek is dry, and she forgetteth thee the moment she turneth from thee.

Doth she rejoice to see thee, yet her eye sparkleth not; is she sorry for thy departure, yet her countenance altereth not.

Good offices are familiar to her tongue; but, if thou claimest her promises, she is astonished, and knoweth not what thou meanest.

She calleth herself thy friend to thy face, and owneth to a third person she hath some knowledge of thee.

Trust her not with thy dealings; let her have no knowledge of thy ways; for she is the spreader of scandal, and inquireth after news to divulge it.

Avoid also the number of her sisters; nor let them find out the way of thine house.

FRIENDSHIP.

As the tenderness of a mother in the hour of thy distress; as the love of a father in the day of thy trouble, so is the help of a friend in the time of need.

Dost thou think thou hast many friends; do they profess much love; are they lavish in their promises of kindness? Be not credulous, nor rely on the form of set speeches.

The breath of the mouth is cheap and costeth nothing, and the tongue moveth slippery within; but the heart is often unacquainted therewith.

Hast thou tried their sincerity; hast thou experienced the veracity of their promises; have they served thee when thou stoodst in need of their assistance? Yet, for all this, beware how far thou confidest in them.

Try them once and again, and at the third time they may cast thee off, and say thou troublest them too often.

Hast thou a friend, put it not in her power to be much thine enemy, if thou canst avoid the necessity thereof; for thou knowest not how slight an occasion may turn her heart against thee.

Thy bent of inclination, thy agreeable accomplishments, may excite many to a show of amity for a while; but friendship dwelleth not in outward appearance.

Thou art not indebted for their kindness; the favor thou receivest is but the price of thy talents, and their own interest the motive of their good-will towards thee.

There are those who make friendships on purpose to betray; who confer obligations that they may exact obedience.

Who think they have a right to command thee; thy life and thy reputation, they will boast as the effect of their tenderness, and thy success as their care towards thee.

Have no confidence in these; neither desire to be intrusted with the privacies of their actions.

Who giveth thee a secret and enjoineeth thy silence, she doth it that she may have the pleasure of telling it herself.

Yet let not thy distrust stir up ingratitude. The favor of the day deserveth the thanks thereof till the injury of to-morrow cancels the obligation.

Is there a friend indeed, thou wilt know her when thy acquaintance forsake thee. Will she defend thy innocence when all men accuse thee falsely; will she bear reproach unjustly for thy sake, take her to thy bosom; she is a jewel of a high price, a diamond of inestimable value.